

# **Datareport: Grain size distribution Kriegers Flak grab samples 2012**

Laboratory analysis for Energinet.dk

B. Larsen, I. Nørgaard & A. Stoican

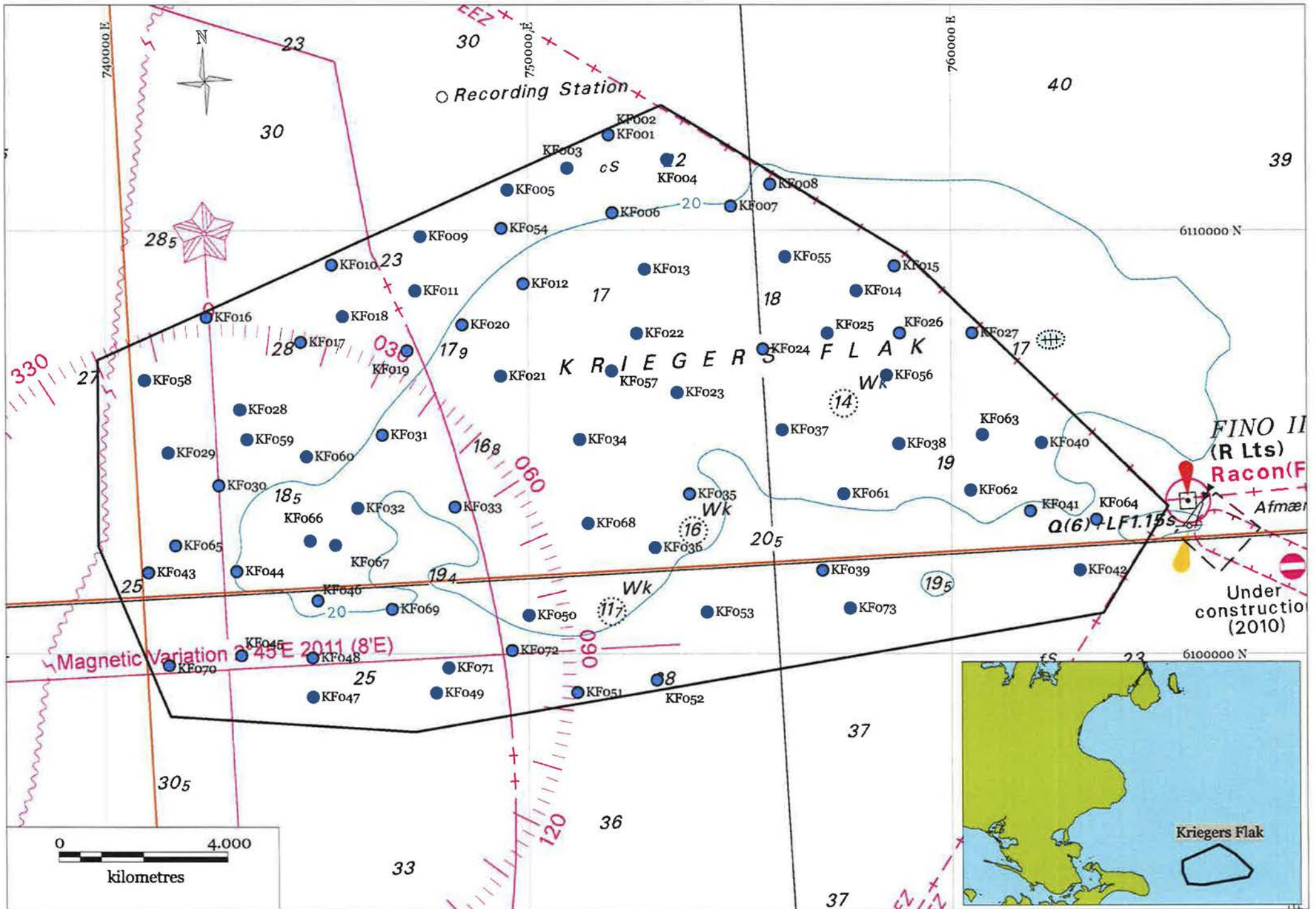


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Released 01.12.2017

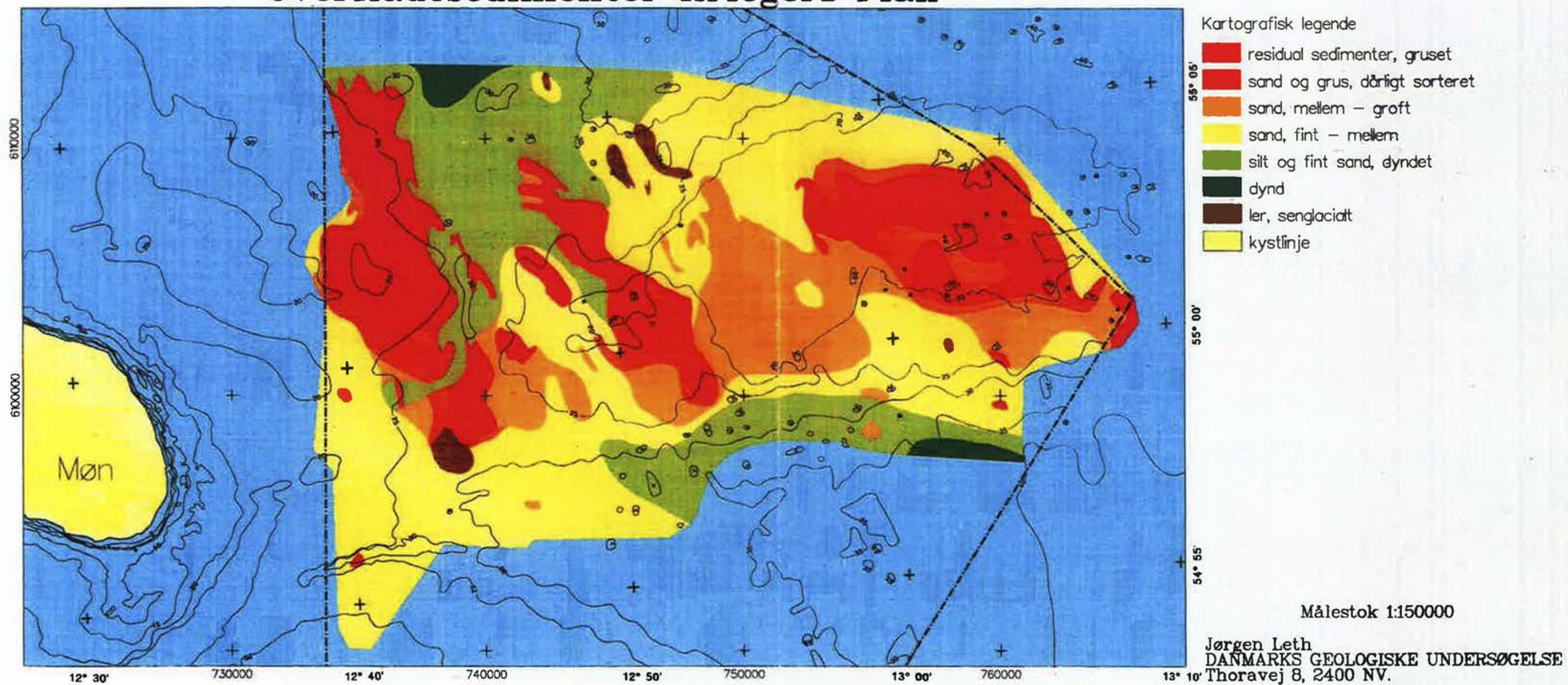


KRIEGER'S FLAK GRAB SAMPLES

Sample	nr	easting	northing	depth m								
AQFKG	KF001	751916	6112287	29		SAND	coarse w. medium	sl.gravelly	sorted		light grey	Ma. Recent
AQFKG	KF002	751916	6112287	29		SAND	medium	w.coarse	well sorted	few mar. shell frag.	ligh yellowish grey	Ma. Recent
AQFKG	KF003	750941	6111498	28		SAND & GRAVEL	w.stones -4 cm	sl.clayey			grey	Residual
AQFKG	KF004	753297	6111697	25		SAND	medium		well sorted	few Macoma and Cardium	light yellowish grey	Ma. Recent
AQFKG	KF005	749527	6110987	28		SAND	fine	sl.coarse silty	well sorted		light yellowish grey	Ma. Recent
AQFKG	KF006	752003	6110447	23		SAND	fine- medium		well sorted		light yellowish grey	Ma. Recent
AQFKG	KF007	754796	6110605	21		SAND	medium	w fine sand	well sorted		light yellowish grey	Ma. Recent
AQFKG	KF008	755733	6111119	22,5		SAND	medium	w fine sand	well sorted	few Cardium	light yellowish grey	Ma. Recent
AQFKG	KF009	747453	6109890	30		SILT	coarse	w.fine sand	well sorted		light grey	Ma. Recent
AQFKG	KF010	745357	6109219	30		SAND	clayey	w.fine sand	sorted	few Macoma	grey	Ma. Recent
AQFKG	KF011	747334	6108612	26,5	no sample	HARD Bottom						Residual
AQFKG	KF012	749892	6108776	20		SAND	fine-medium	w.coarse silt	well sorted		light yellowish grey	Ma. Recent
AQFKG	KF013	752763	6109109	18		SAND	medium		well sorted	few Macoma shells	light yellowish grey	Ma. Recent
AQFKG	KF014	757758	6108603	19,5	2 attempts	GRAVEL				many small Mytilus		Residual
AQFKG	KF015	758659	6109187	20		SAND	medium	w.fine sand	well sorted	few Macoma	light yellowish grey	Ma. Recent
AQFKG	KF016	742388	6107990	29,5		MUD	sandy	silty	sorted	few small Mytilus	dark grey	Ma. Recent
AQFKG	KF017	744614	6107398	30		MUD	sandy	very silty	sorted	few small Mytilus	dark grey	Ma. Recent
AQFKG	KF018	745607	6108009	29,5		MUD	sandy	very silty	sorted	few small Mytilus	dark grey	Ma. Recent
AQFKG	KF019	747138	6107197	27		SAND	fine	silty	well sorted	few small Cardium	light grey	Ma. Recent
AQFKG	KF020	748446	6107802	23		SAND	medium	w.fine sand	well sorted	few small Cardium	light yellowish grey	Ma. Recent
AQFKG	KF021	749347	6106588	18		SAND	fine-medium		sorted	w.Mytilus frag.	light yellowish grey	Ma. Recent
AQFKG	KF022	752565	6107596	18		SAND	w.gravel		poorly sorted	many small Mytilus	grey	Ma. Residual
AQFKG	KF023	753516	6106202	19		SAND	medium	sl.gravelly	well sorted	many small Mytilus	light yellowish grey	Ma. Residual
AQFKG	KF024	755546	6107217	19		SAND	medium-coarse	sl.gravelly	sorted		grey	Ma. Residual
AQFKG	KF025	757077	6107595	18,5	no sample					many small Mytilus	grey	Ma. Residual
AQFKG	KF026	758785	6107594	19	2 attempts	Glacial Till?				many small Mytilus	grey	Residual
AQFKG	KF027	760504	6107599	19		SAND	medium	w.fine sand	well sorted		light yellowish grey	Ma. Recent
AQFKG	KF028	743168	6105806	27	2 attempts	Glacial Till?				many small Mytilus	grey	Residual
AQFKG	KF029	741468	6104790	26		SAND	w.gravel	boulders	poorly sorted			Residual
AQFKG	KF030	742664	6104018	25,5		SAND & GRAVEL	medium-coarse	w. gravel-7cm	unsorted	few Macoma shells	grey	Residual
AQFKG	KF031	746546	6105203	19,5		GRAVEL & STONES	to 10 cm, w.SAND	w.stones-10 cm	unsorted	many small Mytilus	grey	Residual
AQFKG	KF032	745958	6103483	22	2 attempts	Glacial Till?				many small Mytilus	grey	Residual
AQFKG	KF033	748263	6103513	20		SAND	medium w.fine	sl.gravelly	well sorted		light yellowish grey	Ma. Recent
AQFKG	KF034	751210	6105092	18,5		SAND	fine - medium		well sorted		light yellowish grey	Ma Recent
AQFKG	KF035	753800	6103808	20		SAND	fine - medium	w.coarse silt	well sorted		light yellowish grey	Ma Recent
AQFKG	KF036	752987	6102543	20		SAND	medium		well sorted		light yellowish grey	Ma. Recent
AQFKG	KF037	755991	6105311	20		SAND	medium		well sorted		light yellowish grey	Ma. Recent
AQFKG	KF038	758756	6104985	19,5		SAND	fine-coarse	sl.gravelly	poorly sorted	few Mytilus	light yellowish grey	Ma Residual
AQFKG	KF039	756949	6102001	22		SAND	fine-coarse	sl.gravelly	poorly sorted	few Mytilus	light yellowish grey	Ma. Residual
AQFKG	KF040	762137	6105004	22		SAND	medium	sl.clayey	sorted		grey	Residual
AQFKG	KF041	761871	6103402	22		SAND	medium	w.fine sand	well sorted		light yellowish grey	Ma Recent
AQFKG	KF042	763044	6102006	24,5		SAND	medium		well sorted		light yellowish grey	Ma Recent
AQFKG	KF043	741001	6101958	28		SAND	fine-coarse	sl.gravelly	poorly sorted	many small Mytilus	grey	Ma. Residual
AQFKG	KF044	743087	6101984	22		SAND	fine-medium		well sorted		light yellowish grey	Ma Recent
AQFKG	KF045	743201	6099995	25		SAND	medium	w.fine sand	well sorted	few Mytilus	light yellowish grey	Ma Recent
AQFKG	KF046	745008	6101293	21		SAND	medium w coarse	sl.gravelly	sorted	few small Cardium	light yellowish grey	Ma Recent
AQFKG	KF047	744889	6099002	28		SAND	fine-medium		well sorted		light yellowish grey	Ma Recent
AQFKG	KF048	744884	6099933	24		SAND	medium	w.fine sand	well sorted		light yellowish grey	Ma Recent
AQFKG	KF049	747814	6099101	28		SAND	medium and coarse		well sorted	few small Mytilus	light yellowish grey	Ma Recent
AQFKG	KF050	750006	6100940	21	no sample	STONE						Residual

AQFKG	KF051	751150	6099113	30		SAND	fine and medium		well sorted		light yellowish grey	Ma	Recent
AQFKG	KF052	753022	6099410	30	no sample	STONE	5-10 cm Till?			many small Mytilus		Ma	Residual
AQFKG	KF053	754210	6101011	26		SAND	medium and fine		well sorted	many small Mytilus	light yellowish grey	Ma	Recent
AQFKG	KF054	749376	6110083	26		SAND	fine	w.medium	well sorted	few small Mytilus	light yellowish grey	Ma	Recent
AQFKG	KF055	756078	6109408	19		SAND	medium	w. fine sand	well sorted		light yellowish grey	Ma	Recent
AQFKG	KF056	758468	6106603	20		SAND	fine-medium		well sorted	few shell frag.	light yellowish grey	Ma	Recent
AQFKG	KF057	751977	6106706	18		SAND	medium	w.fine sand	well sorted	many small Mytilus	light yellowish grey	Ma	Recent
AQFKG	KF058	740919	6106498	29,5		SILT	coarse	w.fine sand	sorted		light grey	Ma	Recent
AQFKG	KF059	743336	6105100	26,5		SAND	medium	w.fine sand	well sorted	few small Macoma	light grey	Ma	Recent
AQFKG	KF060	744742	6104703	23,5	2 attempts	HARD BOTOM	Till?			Mytilus			Residual
AQFKG	KF061	757445	6103815	18,5	no sample	HARD BOTOM	Till?			Mytilus			Residual
AQFKG	KF062	760452	6103895	20		SAND	medium-coarse	sl.gravelly	unsorted	many small Mytilus	grey	Ma	Residual
AQFKG	KF063	760740	6105188	20		SAND	fine-coarse	gravelly	unsorted	many small Mytilus	grey	Ma	Residual
AQFKG	KF064	763436	6103198	23		SAND	medium	sl.gravelly	sorted	few Macoma frag.	light yellowish grey	Ma	Recent
AQFKG	KF065	741648	6102599	26,5		SAND	fine-medium	w.coarse silt	well sorted	few small Mytilus	light yellowish grey	Ma	Recent
AQFKG	KF066	744829	6102703	21,5		SAND	medium	w.fine sand	well sorted		light grey		Residual
AQFKG	KF067	745432	6102604	22,5		SAND	medium	w.coarse sand	sorted	w.small Mytilus	light yellowish grey	Ma	Recent
AQFKG	KF068	751402	6103113	18		SAND	medium		well sorted	w.small Mytilus	light yellowish grey	Ma	Recent
AQFKG	KF069	746773	6101091	23		SAND	fine-coarse	w.gravel	unsorted	w.small Mytilus	light yellowish grey		Residual
AQFKG	KF070	741491	6099754	29		SAND	medium-coarse	w.gravel	unsorted	w.small Macoma	light yellowish grey		Residual
AQFKG	KF071	748111	6099700	26	no sample	HARD BOTTOM	Till?		sorted	w.small Mytilus	light yellowish grey	Ma	Residual
AQFKG	KF072	749605	6100114	27		SAND	fine-medium		well sorted	w.small Mytilus	light yellowish grey	Ma	Recent
AQFKG	KF073	757594	6101111	25		SAND	fine-medium		sorted	w.small Mya arenaria	light yellowish grey	Ma	Recent

# Overfladesedimenter Kriegers Flak



## Results

In table 1, the water content and loss on ignition are listed. The percentage of water is also shown. In attachment 1, the grain size distribution for the sediment samples is shown. The grain size distribution shows the distribution of sand, silt and clay in the samples. If the samples do not comply with the DS/EN 933-1DS requirement that the size of the sediment samples is at least 200 gr., this is noted under Total Weight.

## Sample treatment

GEUS has carried out analyses on sample sediments from Krigers Flak Grab Samples. When received the samples were registered with the following five categories:

- date
- locality
- laboratory number in succession
- client
- analysis requirements

Remaining analysis material is only kept for 14 days after reporting.

## Analysis methods

### Water content determination

The water content is determined in percentage of natural condition sample weight. The samples are dried at 105° C to constant weight. No salt correction is carried out.

The analyses are carried out according to DS 405.11 in part and DS 204 in part in Water and Environment.

### Loss on ignition determination

The organic content and the content of chemically-bonded water are determined with the loss on ignition analysis. The loss on ignition is determined in weight % of material dried at 105° C.

The analyses are carried out according to DS 405 in part and DS 204 in part.

### Grain size distribution

Sieve analysis:

The total sample is dried and washed through a 0,063 mm sieve. The resulting sediment is sieved through a sieve column from 16 mm to 0,063 mm with ½ phi intervals, which corresponds to 15 sieves. The method is adapted from to DS/EN 933-1, as there are more sieves than described in this standard.

### Sample descriptions:

Description of samples are done by seniorgeologist Birger Larsen. GEUS.

## **References**

Standarder for Vand & Miljø. DS Håndbogen 21.2. Dansk Standardiseringsråd, 1991.

Dansk Standard DS 204. Tørstof og gløderest. Dansk Standardiseringsråd, Kbh.1980.

SS/EN 933-1. Kornstørrelsesfordeling bestemt ved sigteanalyse. Dansk Standard. 2004.

Dansk Standard DS 405.11. Vandindhold. Dansk Standardiseringsråd, Kbh.1978.



# **Table 1**

## Krigers Flak Grab Samples.

**Water content %**

**Loss on ignition%**

<b>Sampel</b>	<b>Water content</b>	<b>Loss on ignition</b>
AQKFGS001	14,60	0,54
AQKFGS002	19,91	0,19
AQKFGS003	13,50	0,55
AQKFGS004	17,85	0,25
AQKFGS005	21,18	0,34
AQKFGS006	20,14	0,43
AQKFGS007	18,86	0,14
AQKFGS008	18,09	0,15
AQKFGS009	22,04	0,79
AQKFGS010	26,47	1,45
AQKFGS012	20,81	0,21
AQKFGS013	18,08	0,19
AQKFGS015	17,34	0,23
AQKFGS016	28,60	1,95
AQKFGS017	40,68	4,34
AQKFGS018	26,81	1,85
AQKFGS019	21,72	0,75
AQKFGS020	19,46	0,27
AQKFGS021	17,02	0,29
AQKFGS022	18,86	0,76
AQKFGS023	25,11	0,95
AQKFGS024_1	17,10	0,23
AQKFGS025	58,81	4,18
AQKFGS027	18,74	0,19
AQKFGS030	15,73	0,79
AQKFGS031	10,84	1,00
AQKFGS033	16,36	0,27
AQKFGS034	18,32	0,27
AQKFGS035	18,54	0,19
*AQKFGS036	10,31	0,29
AQKFGS037	18,38	0,27
AQKFGS039	11,63	0,44
AQKFGS040	19,26	0,45
AQKFGS041	19,96	2,36
AQKFGS042	18,80	0,26
AQKFGS043	38,21	2,39
AQKFGS044	17,89	0,26
AQKFGS045	17,76	0,29
AQKFGS046	17,53	0,44
AQKFGS047	20,54	0,41
AQKFGS048	19,51	0,27
AQKFGS049	18,33	0,53
AQKFGS051	18,58	0,35
AQKFGS053	19,94	0,28
AQKFGS054	25,69	0,51
AQKFGS055	16,89	0,26
AQKFGS056	18,58	0,23
AQKFGS057	25,48	0,65
AQKFGS058	38,13	4,35

\*AQKFGS036 udenpå pose AQKFGS056 i pose

## Krigers Flak Grab Samples.

**Water content %**

**Loss on ignition%**

<b>Sampel</b>	<b>Water content</b>	<b>Loss on ignition</b>
AQKFGS059	20,15	0,54
AQKFGS062	21,78	0,59
AQKFGS063	17,42	1,50
AQKFGS064	19,75	0,32
AQKFGS065	20,76	0,37
AQKFGS066	18,44	0,27
AQKFGS067	19,44	0,75
AQKFGS068	19,59	0,85
AQKFGS069	9,36	0,56
AQKFGS070	15,58	0,61
AQKFGS072	18,89	0,26
AQKFGS073	18,69	0,23

nov. 2012

# **Appendix 1**

# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS001  
**Lab. Id:** KF 1  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 8 mm.



**Total Weight** 223,45 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	4,48	2,00	98,00
4,00	-2,00	6,72	3,01	94,99
2,80	-1,49	7,39	3,31	91,68
2,00	-1,00	9,18	4,11	87,57
1,40	-0,49	18,83	8,43	79,15
1,00	0,00	35,87	16,05	63,09
0,710	0,49	47,33	21,18	41,91
0,500	1,00	45,42	20,33	21,58
0,355	1,49	18,71	8,37	13,21
0,250	2,00	7,16	3,20	10,01
0,180	2,47	7,30	3,27	6,74
0,125	3,00	10,93	4,89	1,85
0,090	3,47	2,28	1,02	0,83
0,075	3,74	0,30	0,13	0,69
0,063	3,99	0,28	0,13	0,57
< 0,063	> 3,99	1,27	0,57	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	0,57
Sand, fine (0,063 mm - 0,200 mm):	7,10
Sand, medium (0,2 mm - 0,6 mm):	23,59
Sand, coarse (0,6 mm - 2 mm):	56,31
Gravel (> 2 mm):	12,43
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	4,02	-2,01
16%	84%	1,75	-0,80
25%	75%	1,30	-0,37
40%	60%	0,96	0,06
Median 50%	50%	0,82	0,28
75%	25%	0,54	0,90
84%	16%	0,40	1,31
90%	10%	0,25	2,00
95%	5%	0,16	2,64

## Moments Statistics

Mean	0,26
Sorting	1,23
Skewness	-0,01
Kurtosis	1,49
Uniformity Coefficient	3,83

The analysis is executed according to DS405.9  
 DS/EN933-1 extended by sieves to the ½ phi scale.

Size Classes and Percentiles  
 are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

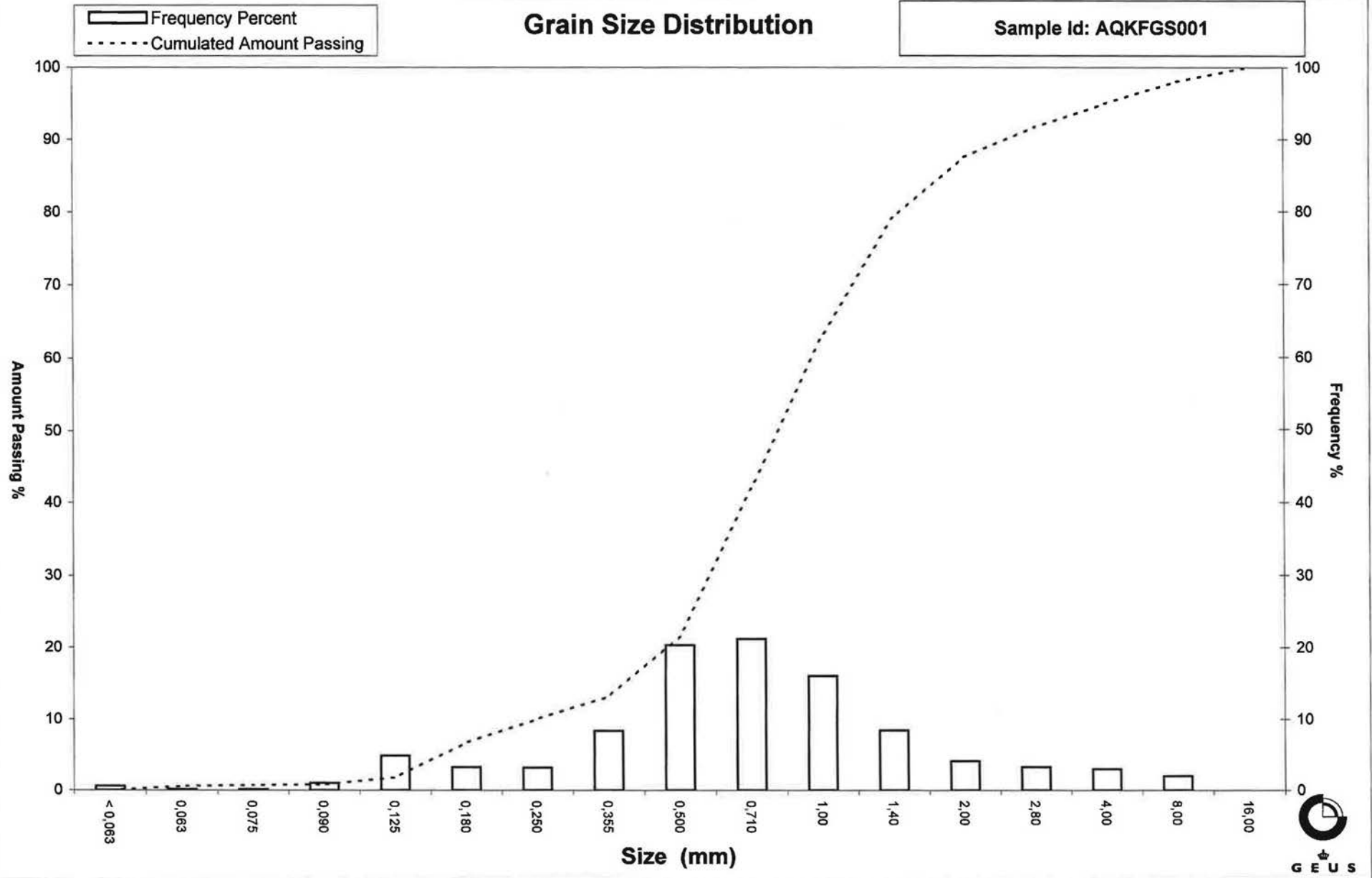
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on  
 "Amount in sieve". Uniformity coefficient is based on  
 "Amount passing".

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# Grain Size Distribution

Sample Id: AQQFGS001



# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS002  
**Lab. Id:** KF2  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 105,83 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,00	0,00	100,00
2,00	-1,00	0,17	0,16	99,84
1,40	-0,49	1,31	1,24	98,60
1,00	0,00	3,15	2,98	95,63
0,710	0,49	4,98	4,71	90,92
0,500	1,00	14,65	13,84	77,08
0,355	1,49	29,44	27,82	49,26
0,250	2,00	34,11	32,23	17,03
0,180	2,47	13,82	13,06	3,97
0,125	3,00	2,84	2,68	1,29
0,090	3,47	0,37	0,35	0,94
0,075	3,74	0,42	0,40	0,54
0,063	3,99	0,30	0,28	0,26
< 0,063	> 3,99	0,27	0,26	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	0,26
Sand, fine (0,063 mm - 0,200 mm):	7,44
Sand, medium (0,2 mm - 0,6 mm):	75,97
Sand, coarse (0,6 mm - 2 mm):	16,17
Gravel (> 2 mm):	0,16
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,96	0,06
16%	84%	0,61	0,72
25%	75%	0,49	1,03
40%	60%	0,41	1,28
Median 50%	50%	0,36	1,48
75%	25%	0,28	1,86
84%	16%	0,24	2,03
90%	10%	0,21	2,24
95%	5%	0,19	2,43

## Moments Statistics

Mean	1,41
Sorting	0,69
Skewness	-0,18
Kurtosis	1,18
Uniformity Coefficient	1,94

The analysis is executed according to DS405.9 DS/EN933-1 extended by sieves to the 1/2 phi scale.

Size Classes and Percentiles are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

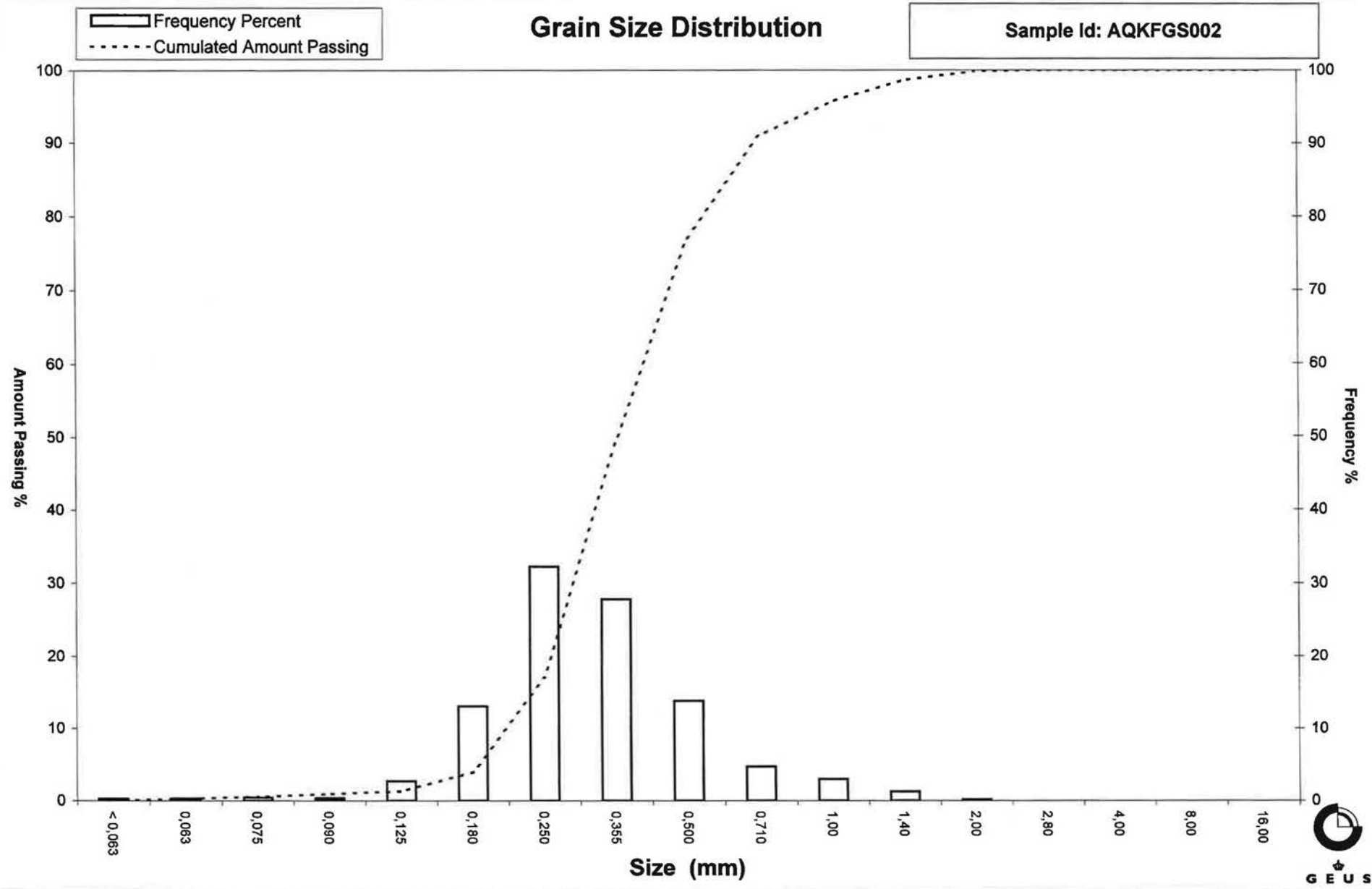
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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 www.geus.dk

# Grain Size Distribution

Sample Id: AQKFGS002





# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS003  
**Lab. Id:** KF 3  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 8 mm.



**Total Weight** 205,17 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	9,20	4,48	95,52
4,00	-2,00	7,85	3,83	91,69
2,80	-1,49	5,48	2,67	89,02
2,00	-1,00	8,15	3,97	85,05
1,40	-0,49	15,36	7,49	77,56
1,00	0,00	34,51	16,82	60,74
0,710	0,49	40,95	19,96	40,78
0,500	1,00	33,95	16,55	24,23
0,355	1,49	19,27	9,39	14,84
0,250	2,00	12,18	5,94	8,90
0,180	2,47	5,69	2,77	6,13
0,125	3,00	9,62	4,69	1,44
0,090	3,47	1,01	0,49	0,95
0,075	3,74	0,11	0,05	0,90
0,063	3,99	0,09	0,04	0,85
< 0,063	> 3,99	1,75	0,85	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	0,85
Sand, fine (0,063 mm - 0,200 mm):	6,07
Sand, medium (0,2 mm - 0,6 mm):	25,19
Sand, coarse (0,6 mm - 2 mm):	52,93
Gravel (> 2 mm):	14,95
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	7,46	-2,90
16%	84%	1,92	-0,94
25%	75%	1,34	-0,42
40%	60%	0,99	0,02
Median 50%	50%	0,84	0,24
75%	25%	0,51	0,97
84%	16%	0,37	1,42
90%	10%	0,27	1,89
95%	5%	0,17	2,58

## Moments Statistics

Mean	0,24
Sorting	1,42
Skewness	-0,07
Kurtosis	1,61
Uniformity Coefficient	3,67

The analysis is executed according to DS405.9  
 DS/EN933-1 extended by sieves to the ½ phi scale.

Size Classes and Percentiles  
 are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

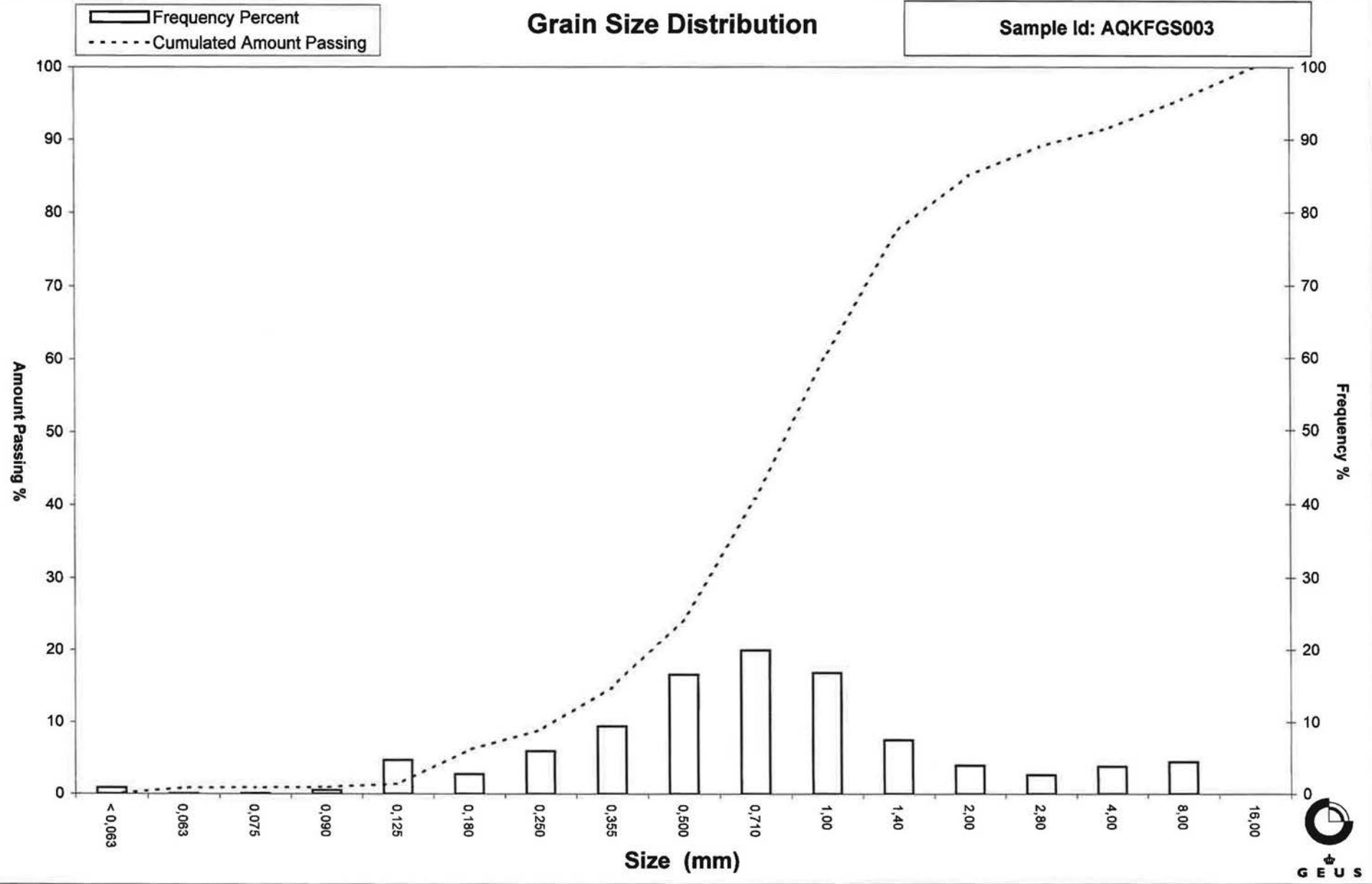
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on  
 "Amount in sieve". Uniformity coefficient is based on  
 "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS003



# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS004  
**Lab. Id:** KF 4  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 111,13 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,08	0,07	99,93
2,00	-1,00	0,07	0,06	99,87
1,40	-0,49	0,34	0,31	99,56
1,00	0,00	1,30	1,17	98,39
0,710	0,49	5,75	5,17	93,22
0,500	1,00	20,10	18,09	75,13
0,355	1,49	23,95	21,55	53,58
0,250	2,00	35,85	32,26	21,32
0,180	2,47	18,45	16,60	4,72
0,125	3,00	4,68	4,21	0,50
0,090	3,47	0,34	0,31	0,20
0,075	3,74	0,01	0,01	0,19
0,063	3,99	0,01	0,01	0,18
< 0,063	> 3,99	0,20	0,18	0,00

## Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	0,18
Sand, fine (0,063 mm - 0,200 mm):	9,28
Sand, medium (0,2 mm - 0,6 mm):	74,28
Sand, coarse (0,6 mm - 2 mm):	16,12
Gravel (> 2 mm):	0,13
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	φ
Amount in sieve	Amount passing		
5%	95%	0,81	0,30
16%	84%	0,60	0,73
25%	75%	0,50	1,00
40%	60%	0,40	1,33
Median 50%	50%	0,34	1,54
75%	25%	0,26	1,93
84%	16%	0,23	2,14
90%	10%	0,20	2,31
95%	5%	0,18	2,46

## Moments Statistics

Mean	1,47
Sorting	0,68
Skewness	-0,15
Kurtosis	0,95
Uniformity Coefficient	1,97

The analysis is executed according to DS405.9  
 DS/EN933-1 extended by sieves to the 1/2 phi scale.

Size Classes and Percentiles  
 are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

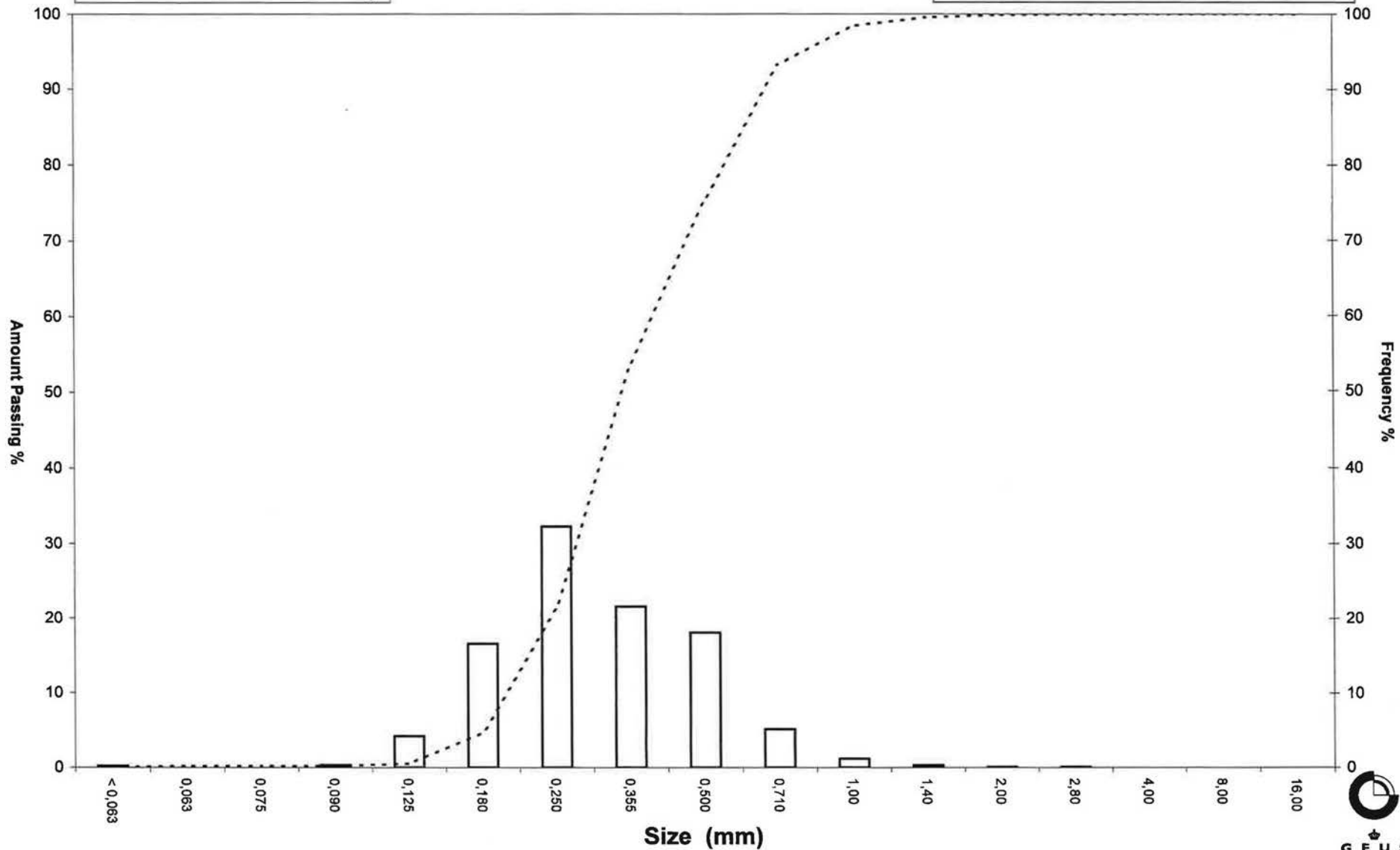
Mean, sorting, skewness and kurtosis are based on  
 "Amount in sieve". Uniformity coefficient is based on  
 "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS004

Frequency Percent  
Cumulated Amount Passing



# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS005  
**Lab. Id:** KF 5  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 101,31 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,00	0,00	100,00
2,00	-1,00	0,00	0,00	100,00
1,40	-0,49	0,12	0,12	99,88
1,00	0,00	0,06	0,06	99,82
0,710	0,49	0,07	0,07	99,75
0,500	1,00	0,50	0,49	99,26
0,355	1,49	2,13	2,10	97,16
0,250	2,00	7,07	6,98	90,18
0,180	2,47	17,01	16,79	73,39
0,125	3,00	66,25	65,39	8,00
0,090	3,47	7,02	6,93	1,07
0,075	3,74	0,20	0,20	0,87
0,063	3,99	0,06	0,06	0,81
< 0,063	> 3,99	0,82	0,81	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	0,81
Sand, fine (0,063 mm - 0,200 mm):	77,38
Sand, medium (0,2 mm - 0,6 mm):	21,31
Sand, coarse (0,6 mm - 2 mm):	0,51
Gravel (> 2 mm):	0,00
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,32	1,63
16%	84%	0,22	2,16
25%	75%	0,19	2,42
40%	60%	0,17	2,57
Median 50%	50%	0,16	2,64
75%	25%	0,14	2,84
84%	16%	0,13	2,92
90%	10%	0,13	2,98
95%	5%	0,11	3,19

## Moments Statistics

Mean	2,57
Sorting	0,43
Skewness	-0,28
Kurtosis	1,51
Uniformity Coefficient	1,33

The analysis is executed according to DS405.9  
 DS/EN933-1 extended by sieves to the ½ phi scale.

Size Classes and Percentiles  
 are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

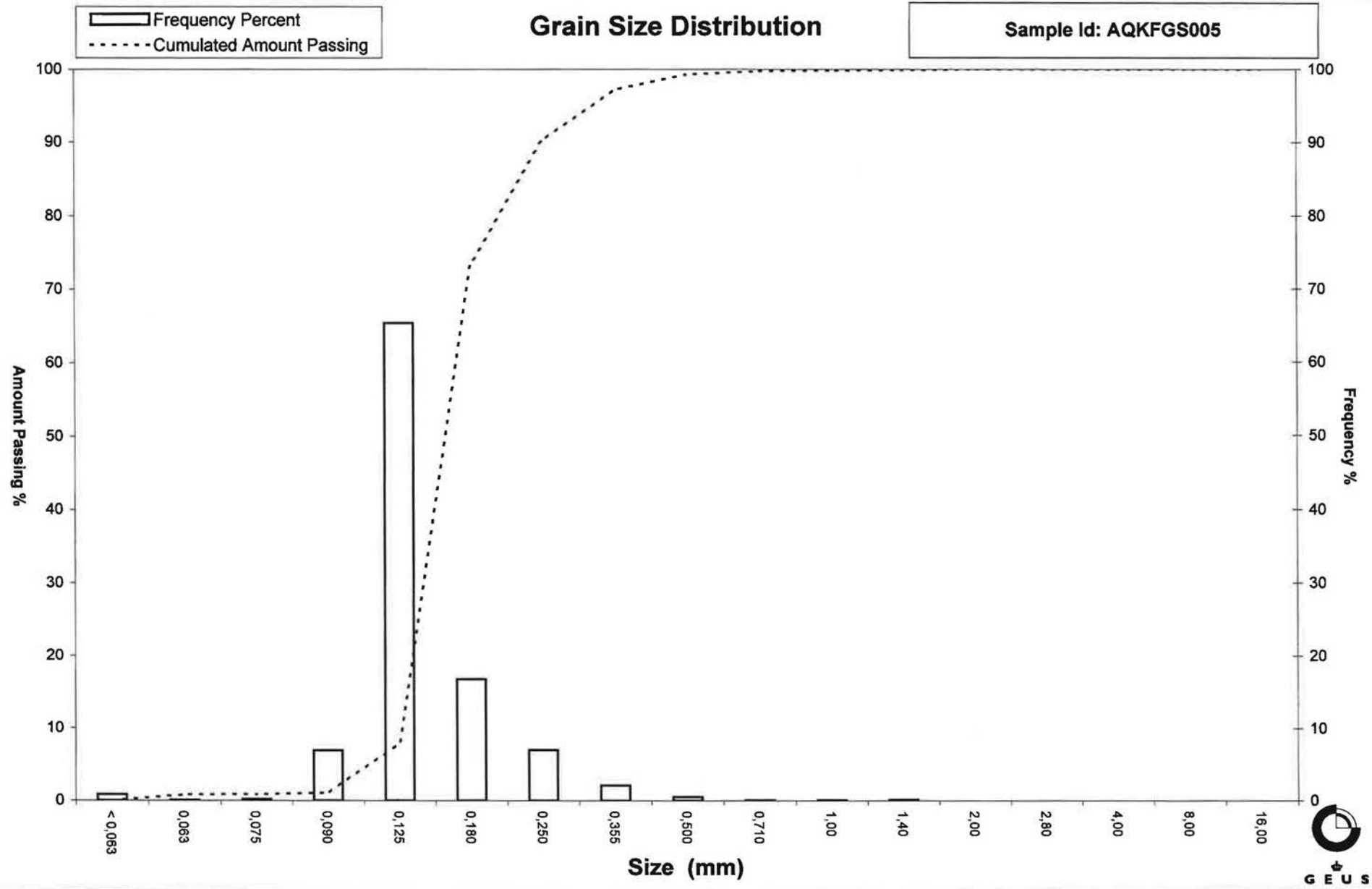
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on  
 "Amount in sieve". Uniformity coefficient is based on  
 "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS005



# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS006  
**Lab. Id:** KF 6  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 109,69 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,04	0,04	99,96
2,00	-1,00	0,10	0,09	99,87
1,40	-0,49	0,11	0,10	99,77
1,00	0,00	0,16	0,15	99,63
0,710	0,49	0,46	0,42	99,21
0,500	1,00	1,48	1,35	97,86
0,355	1,49	4,01	3,66	94,20
0,250	2,00	17,37	15,84	78,37
0,180	2,47	45,38	41,37	37,00
0,125	3,00	37,60	34,28	2,72
0,090	3,47	2,30	2,10	0,62
0,075	3,74	0,06	0,05	0,57
0,063	3,99	0,01	0,01	0,56
< 0,063	> 3,99	0,61	0,56	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	0,56
Sand, fine (0,063 mm - 0,200 mm):	48,26
Sand, medium (0,2 mm - 0,6 mm):	49,68
Sand, coarse (0,6 mm - 2 mm):	1,37
Gravel (> 2 mm):	0,13
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,39	1,37
16%	84%	0,29	1,80
25%	75%	0,24	2,03
40%	60%	0,22	2,19
Median 50%	50%	0,20	2,31
75%	25%	0,16	2,64
84%	16%	0,15	2,77
90%	10%	0,14	2,87
95%	5%	0,13	2,96

## Moments Statistics

Mean	2,29
Sorting	0,48
Skewness	-0,11
Kurtosis	1,08
Uniformity Coefficient	1,60

The analysis is executed according to DS405.9  
 DS/EN933-1 extended by sieves to the ½ phi scale.

Size Classes and Percentiles  
 are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

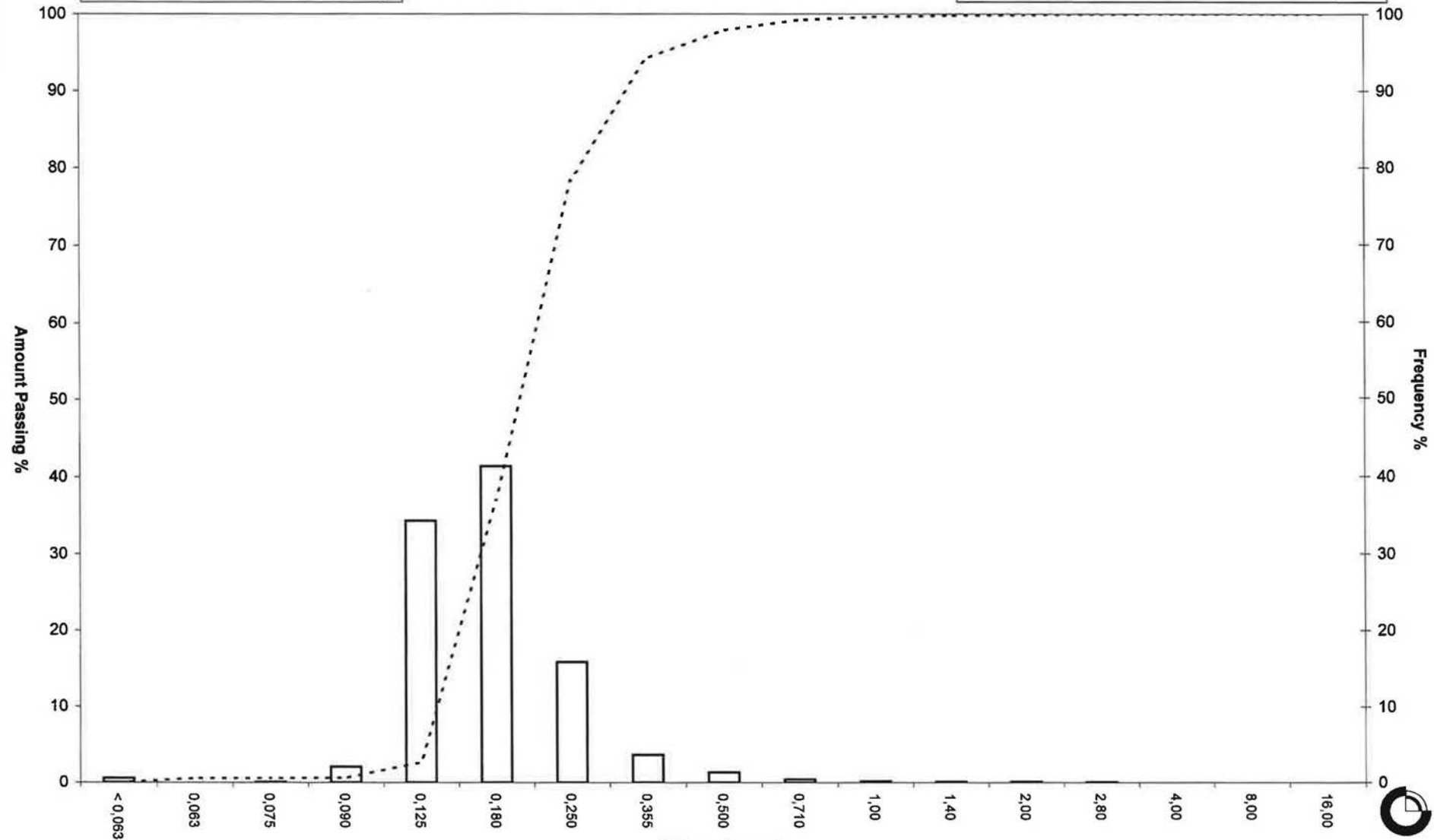
Mean, sorting, skewness and kurtosis are based on  
 "Amount in sieve". Uniformity coefficient is based on  
 "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS006

Frequency Percent  
Cumulated Amount Passing





# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS007  
**Lab. Id:** KF 7  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 106,93 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,01	0,01	99,99
2,00	-1,00	0,11	0,10	99,89
1,40	-0,49	0,18	0,17	99,72
1,00	0,00	0,34	0,32	99,40
0,710	0,49	0,35	0,33	99,07
0,500	1,00	1,15	1,08	98,00
0,355	1,49	11,63	10,88	87,12
0,250	2,00	54,03	50,53	36,59
0,180	2,47	33,20	31,05	5,55
0,125	3,00	5,14	4,81	0,74
0,090	3,47	0,27	0,25	0,49
0,075	3,74	0,01	0,01	0,48
0,063	3,99	0,00	0,00	0,48
< 0,063	> 3,99	0,51	0,48	0,00

Sieve Analysis

Gravel  
Sand

## Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	0,48
Sand, fine (0,063 mm - 0,200 mm):	13,94
Sand, medium (0,2 mm - 0,6 mm):	84,09
Sand, coarse (0,6 mm - 2 mm):	1,38
Gravel (> 2 mm):	0,11
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,46	1,12
16%	84%	0,35	1,52
25%	75%	0,33	1,60
40%	60%	0,30	1,74
Median 50%	50%	0,28	1,85
75%	25%	0,22	2,16
84%	16%	0,20	2,30
90%	10%	0,19	2,40
95%	5%	0,17	2,52

## Moments Statistics

Mean	1,89
Sorting	0,41
Skewness	0,06
Kurtosis	1,03
Uniformity Coefficient	1,57

The analysis is executed according to DS405.9 DS/EN933-1 extended by sieves to the 1/2 phi scale.

Size Classes and Percentiles are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

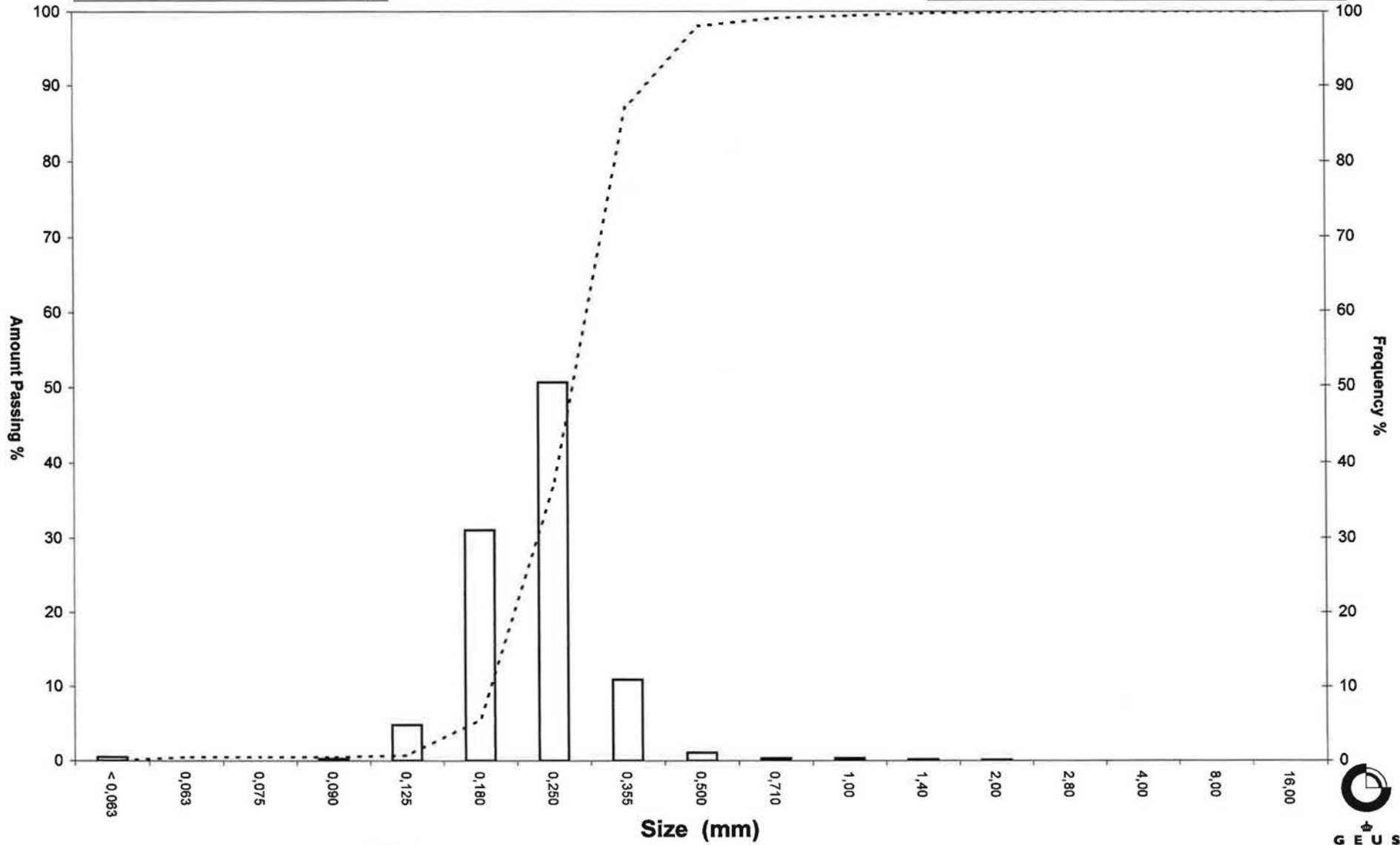
Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS007

Frequency Percent  
Cumulated Amount Passing



# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS008  
**Lab. Id:** KF 8  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 101,27 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,05	0,05	99,95
2,80	-1,49	0,07	0,07	99,88
2,00	-1,00	0,04	0,04	99,84
1,40	-0,49	0,16	0,16	99,68
1,00	0,00	0,48	0,47	99,21
0,710	0,49	0,94	0,93	98,28
0,500	1,00	1,99	1,97	96,32
0,355	1,49	9,76	9,64	86,68
0,250	2,00	42,58	42,05	44,63
0,180	2,47	36,38	35,92	8,71
0,125	3,00	8,06	7,96	0,75
0,090	3,47	0,44	0,43	0,32
0,075	3,74	0,01	0,01	0,31
0,063	3,99	0,00	0,00	0,31
< 0,063	> 3,99	0,31	0,31	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	0,31
Sand, fine (0,063 mm - 0,200 mm):	18,67
Sand, medium (0,2 mm - 0,6 mm):	78,28
Sand, coarse (0,6 mm - 2 mm):	2,59
Gravel (> 2 mm):	0,16
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,48	1,06
16%	84%	0,35	1,52
25%	75%	0,33	1,62
40%	60%	0,29	1,79
Median 50%	50%	0,26	1,92
75%	25%	0,21	2,24
84%	16%	0,19	2,36
90%	10%	0,18	2,45
95%	5%	0,15	2,70

## Moments Statistics

Mean	1,94
Sorting	0,46
Skewness	-0,01
Kurtosis	1,08
Uniformity Coefficient	1,58

The analysis is executed according to DS405.9 DS/EN933-1 extended by sieves to the ½ phi scale.

Size Classes and Percentiles are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

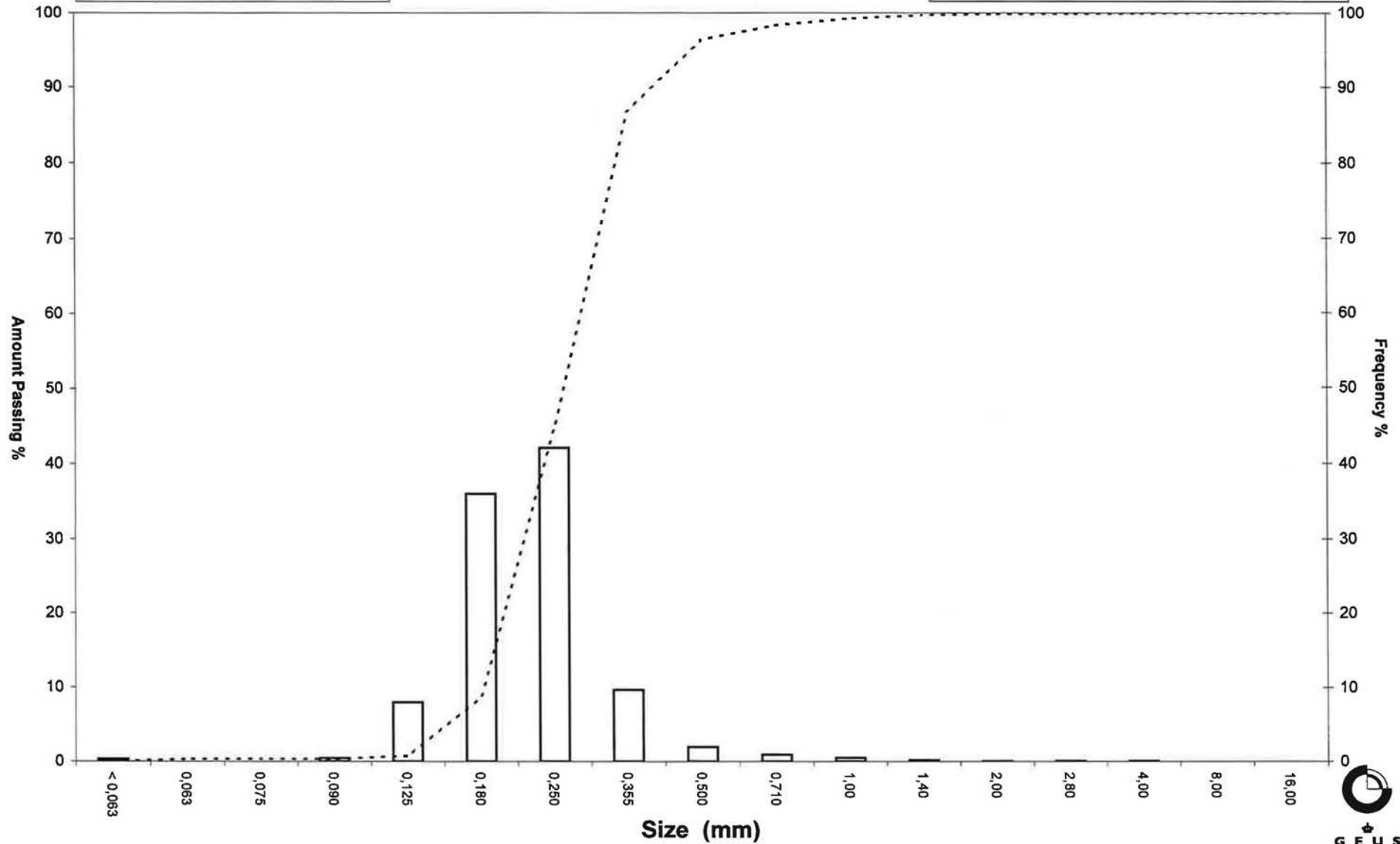
Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS008

Frequency Percent  
Cumulated Amount Passing



# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFCRGS009  
**Lab. Id:** KF 9  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 107,52 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,00	0,00	100,00
2,00	-1,00	0,00	0,00	100,00
1,40	-0,49	0,01	0,01	99,99
1,00	0,00	0,02	0,02	99,97
0,710	0,49	0,03	0,03	99,94
0,500	1,00	0,09	0,08	99,86
0,355	1,49	0,43	0,40	99,46
0,250	2,00	2,80	2,60	96,86
0,180	2,47	9,03	8,40	88,46
0,125	3,00	74,15	68,96	19,49
0,090	3,47	17,79	16,55	2,95
0,075	3,74	0,58	0,54	2,41
0,063	3,99	0,24	0,22	2,19
< 0,063	> 3,99	2,35	2,19	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	2,19
Sand, fine (0,063 mm - 0,200 mm):	88,67
Sand, medium (0,2 mm - 0,6 mm):	9,04
Sand, coarse (0,6 mm - 2 mm):	0,10
Gravel (> 2 mm):	0,00
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,23	2,09
16%	84%	0,18	2,50
25%	75%	0,17	2,56
40%	60%	0,16	2,67
Median 50%	50%	0,15	2,74
75%	25%	0,13	2,95
84%	16%	0,12	3,09
90%	10%	0,10	3,25
95%	5%	0,09	3,41

## Moments Statistics

Mean	2,78
Sorting	0,35
Skewness	0,09
Kurtosis	1,39
Uniformity Coefficient	1,50

The analysis is executed according to DS405.9 DS/EN933-1 extended by sieves to the 1/2 phi scale.

Size Classes and Percentiles are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

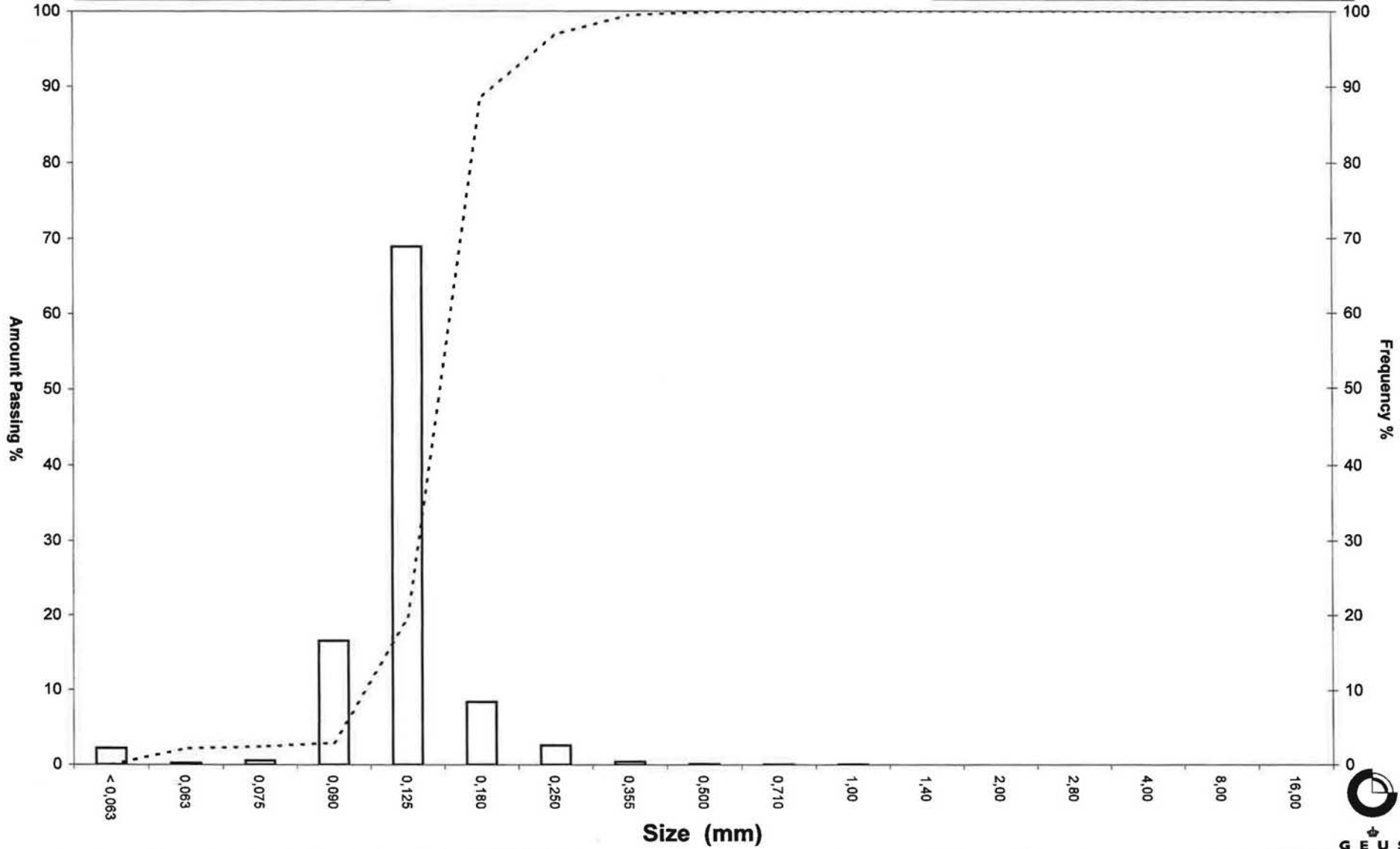
Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFCRGS009

Frequency Percent  
Cumulated Amount Passing



# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS010  
**Lab. Id:** KF 10  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 109,11 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	4,57	4,19	95,81
4,00	-2,00	0,35	0,32	95,49
2,80	-1,49	0,04	0,04	95,45
2,00	-1,00	0,65	0,60	94,86
1,40	-0,49	2,16	1,98	92,88
1,00	0,00	4,61	4,23	88,65
0,710	0,49	6,03	5,53	83,13
0,500	1,00	8,89	8,15	74,98
0,355	1,49	16,26	14,90	60,08
0,250	2,00	24,37	22,34	37,74
0,180	2,47	18,30	16,77	20,97
0,125	3,00	12,96	11,88	9,09
0,090	3,47	3,99	3,66	5,43
0,075	3,74	0,46	0,42	5,01
0,063	3,99	0,42	0,38	4,63
< 0,063	> 3,99	5,05	4,63	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	4,63
Sand, fine (0,063 mm - 0,200 mm):	21,13
Sand, medium (0,2 mm - 0,6 mm):	53,10
Sand, coarse (0,6 mm - 2 mm):	16,00
Gravel (> 2 mm):	5,14
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	2,19	-1,13
16%	84%	0,76	0,40
25%	75%	0,50	1,00
40%	60%	0,35	1,50
Median 50%	50%	0,31	1,70
75%	25%	0,20	2,35
84%	16%	0,16	2,67
90%	10%	0,13	2,95
95%	5%	0,07	3,74

## Moments Statistics

Mean	1,59
Sorting	1,31
Skewness	-0,15
Kurtosis	1,48
Uniformity Coefficient	2,74

The analysis is executed according to DS405.9 DS/EN933-1 extended by sieves to the 1/2 phi scale.

Size Classes and Percentiles are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

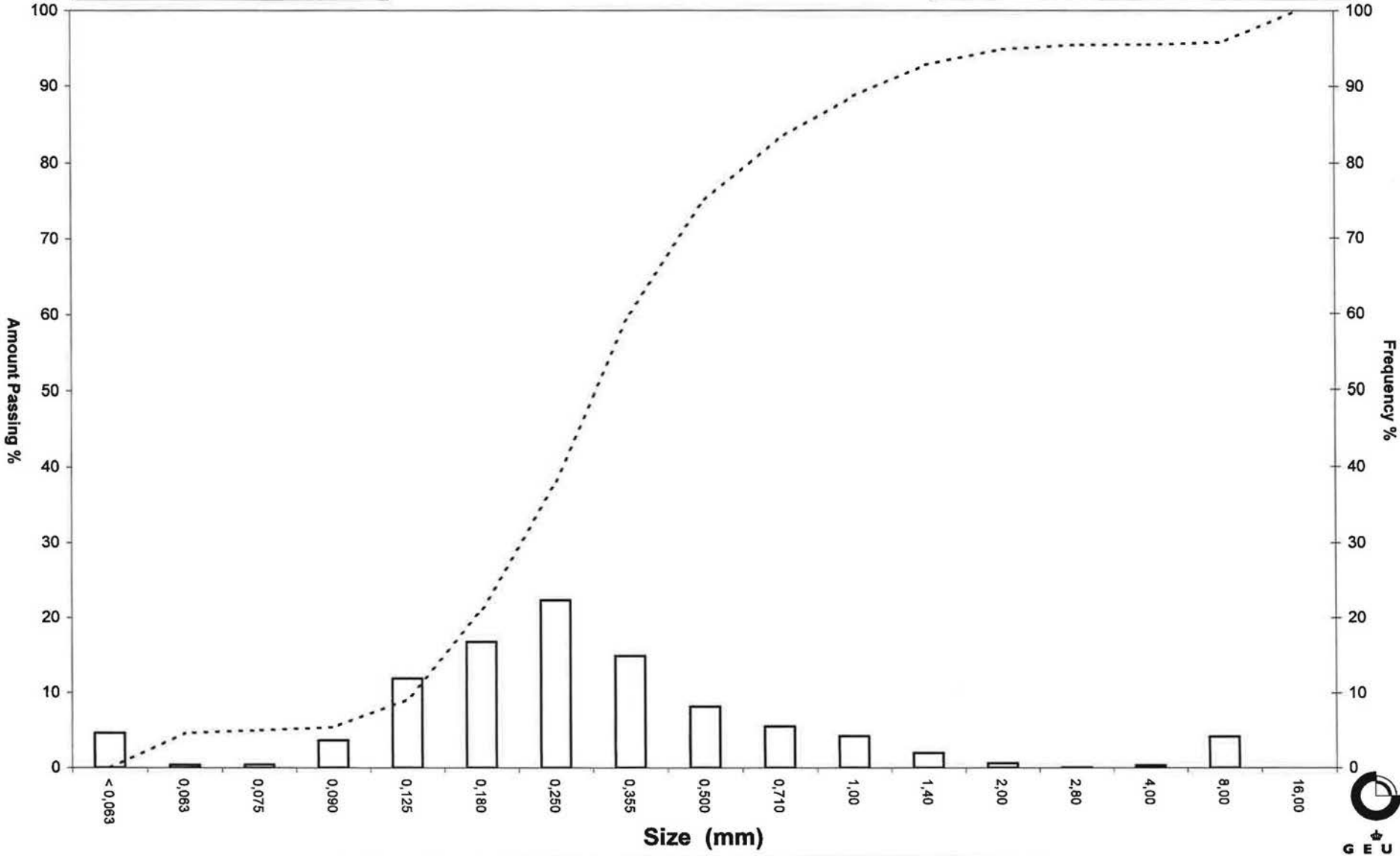
Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS010

Frequency Percent  
Cumulated Amount Passing





# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS012  
**Lab. Id:** KF 12  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 102,48 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing	
16,00	-4,00	0,00	0,00	100,00	Gravel
8,00	-3,00	0,00	0,00	100,00	
4,00	-2,00	0,00	0,00	100,00	
2,80	-1,49	0,00	0,00	100,00	
2,00	-1,00	0,00	0,00	100,00	
1,40	-0,49	0,01	0,01	99,99	
1,00	0,00	0,05	0,05	99,94	
0,710	0,49	0,01	0,01	99,93	
0,500	1,00	0,13	0,13	99,80	
0,355	1,49	1,56	1,52	98,28	
0,250	2,00	19,87	19,39	78,89	Sand
0,180	2,47	48,66	47,48	31,41	
0,125	3,00	30,24	29,51	1,90	
0,090	3,47	1,30	1,27	0,63	
0,075	3,74	0,04	0,04	0,60	
0,063	3,99	0,00	0,00	0,60	
< 0,063	> 3,99	0,61	0,60	0,00	

## Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	0,60
Sand, fine (0,063 mm - 0,200 mm):	44,38
Sand, medium (0,2 mm - 0,6 mm):	54,89
Sand, coarse (0,6 mm - 2 mm):	0,13
Gravel (> 2 mm):	0,00
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	φ
Amount in sieve	Amount passing		
5%	95%	0,34	1,57
16%	84%	0,28	1,85
25%	75%	0,24	2,03
40%	60%	0,22	2,17
Median 50%	50%	0,21	2,27
75%	25%	0,17	2,57
84%	16%	0,15	2,72
90%	10%	0,14	2,84
95%	5%	0,13	2,93

## Moments Statistics

Mean	2,28
Sorting	0,43
Skewness	0,01
Kurtosis	1,04
Uniformity Coefficient	1,59

The analysis is executed according to DS405.9 DS/EN933-1 extended by sieves to the ½ phi scale.

Size Classes and Percentiles are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

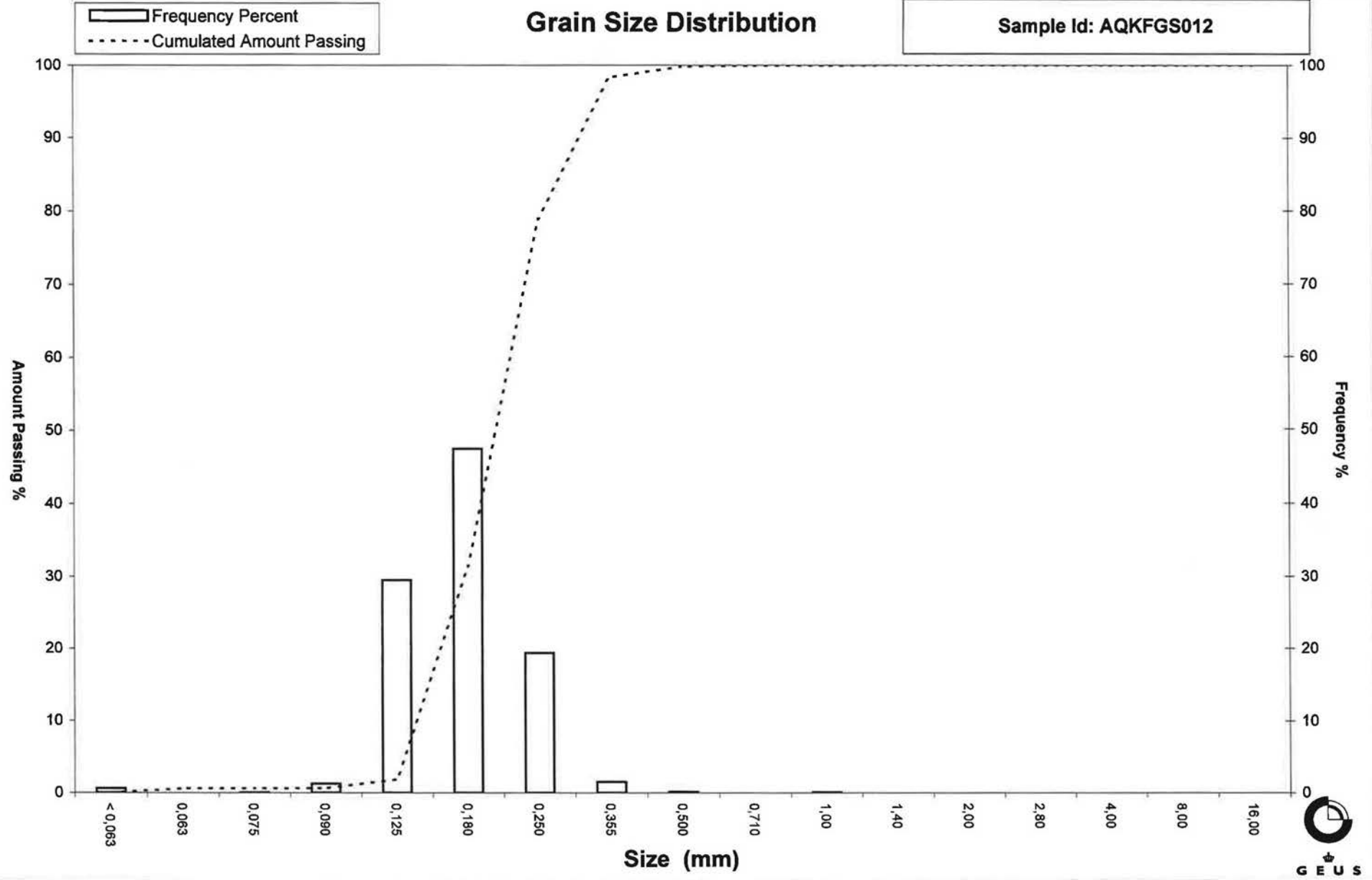
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS012



# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS013  
**Lab. Id:** KF 13  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 105,94 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,11	0,10	99,90
2,80	-1,49	0,00	0,00	99,90
2,00	-1,00	0,06	0,06	99,84
1,40	-0,49	0,18	0,17	99,67
1,00	0,00	0,65	0,61	99,06
0,710	0,49	1,81	1,71	97,35
0,500	1,00	4,85	4,58	92,77
0,355	1,49	19,70	18,60	74,17
0,250	2,00	53,87	50,85	23,32
0,180	2,47	20,48	19,33	3,99
0,125	3,00	3,52	3,32	0,67
0,090	3,47	0,12	0,11	0,56
0,075	3,74	0,01	0,01	0,55
0,063	3,99	0,00	0,00	0,55
< 0,063	> 3,99	0,58	0,55	0,00

Sieve Analysis

Gravel  
Sand

## Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	0,55
Sand, fine (0,063 mm - 0,200 mm):	8,97
Sand, medium (0,2 mm - 0,6 mm):	85,43
Sand, coarse (0,6 mm - 2 mm):	4,89
Gravel (> 2 mm):	0,16
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,60	0,73
16%	84%	0,43	1,21
25%	75%	0,36	1,47
40%	60%	0,33	1,62
Median 50%	50%	0,31	1,71
75%	25%	0,25	1,98
84%	16%	0,22	2,16
90%	10%	0,20	2,31
95%	5%	0,18	2,44

## Moments Statistics

Mean	1,70
Sorting	0,50
Skewness	-0,10
Kurtosis	1,37
Uniformity Coefficient	1,61

The analysis is executed according to DS405.9  
 DS/EN933-1 extended by sieves to the 1/2 phi scale.

Size Classes and Percentiles  
 are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

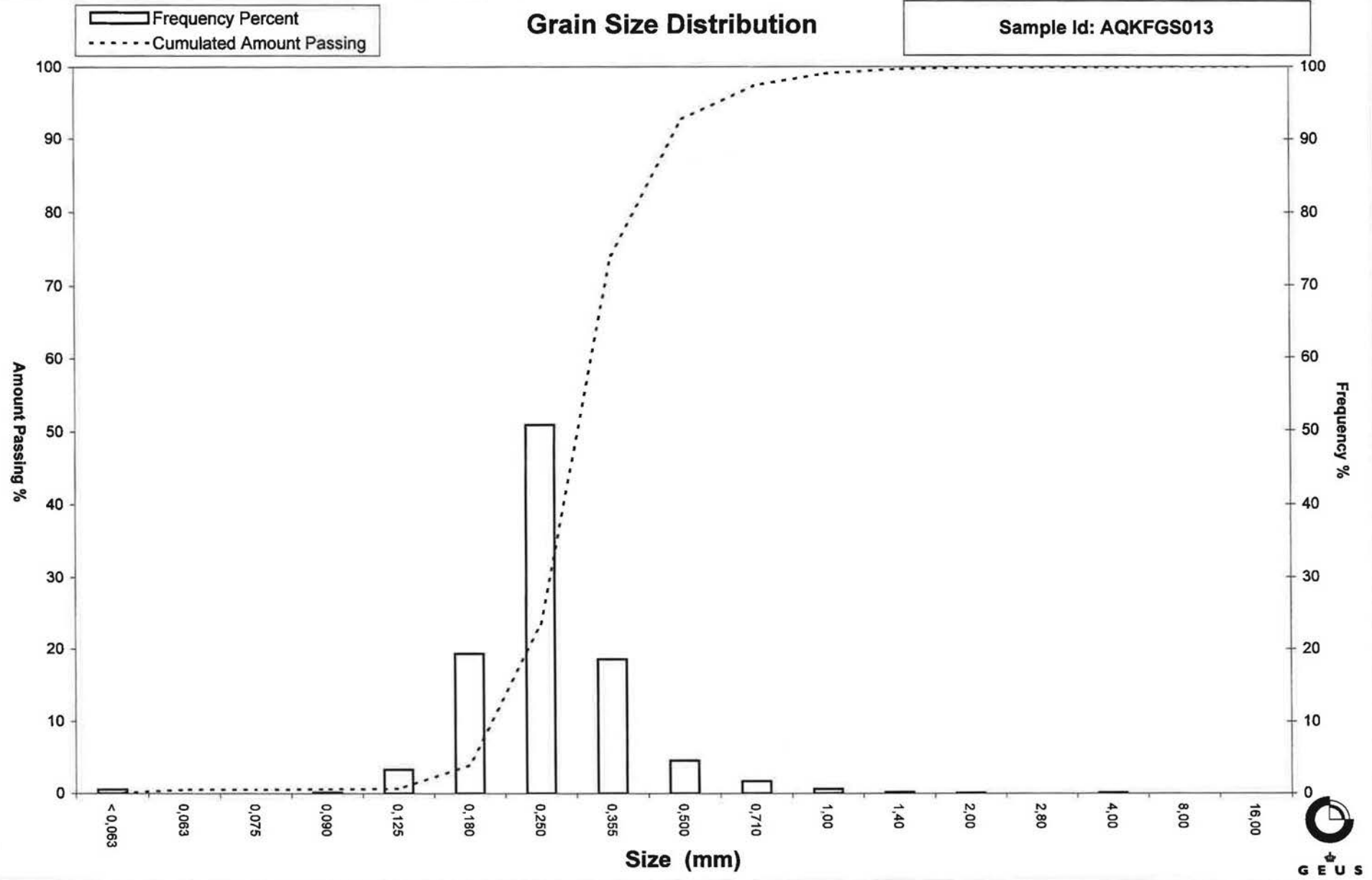
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS013



# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS015  
**Lab. Id:** KF 15  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 112,08 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,63	0,56	99,44
2,80	-1,49	0,64	0,57	98,87
2,00	-1,00	0,80	0,71	98,15
1,40	-0,49	0,90	0,80	97,35
1,00	0,00	2,18	1,95	95,41
0,710	0,49	2,22	1,98	93,42
0,500	1,00	6,10	5,44	87,98
0,355	1,49	26,56	23,70	64,28
0,250	2,00	60,00	53,53	10,75
0,180	2,47	10,69	9,54	1,21
0,125	3,00	0,89	0,79	0,42
0,090	3,47	0,05	0,04	0,37
0,075	3,74	0,01	0,01	0,37
0,063	3,99	0,00	0,00	0,37
< 0,063	> 3,99	0,41	0,37	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	0,37
Sand, fine (0,063 mm - 0,200 mm):	3,57
Sand, medium (0,2 mm - 0,6 mm):	86,63
Sand, coarse (0,6 mm - 2 mm):	7,58
Gravel (> 2 mm):	1,85
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,94	0,09
16%	84%	0,48	1,07
25%	75%	0,42	1,25
40%	60%	0,35	1,53
Median 50%	50%	0,33	1,61
75%	25%	0,28	1,85
84%	16%	0,26	1,94
90%	10%	0,24	2,03
95%	5%	0,21	2,27

## Moments Statistics

Mean	1,54
Sorting	0,55
Skewness	-0,32
Kurtosis	1,49
Uniformity Coefficient	1,42

The analysis is executed according to DS405.9  
 DS/EN933-1 extended by sieves to the ½ phi scale.

Size Classes and Percentiles  
 are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

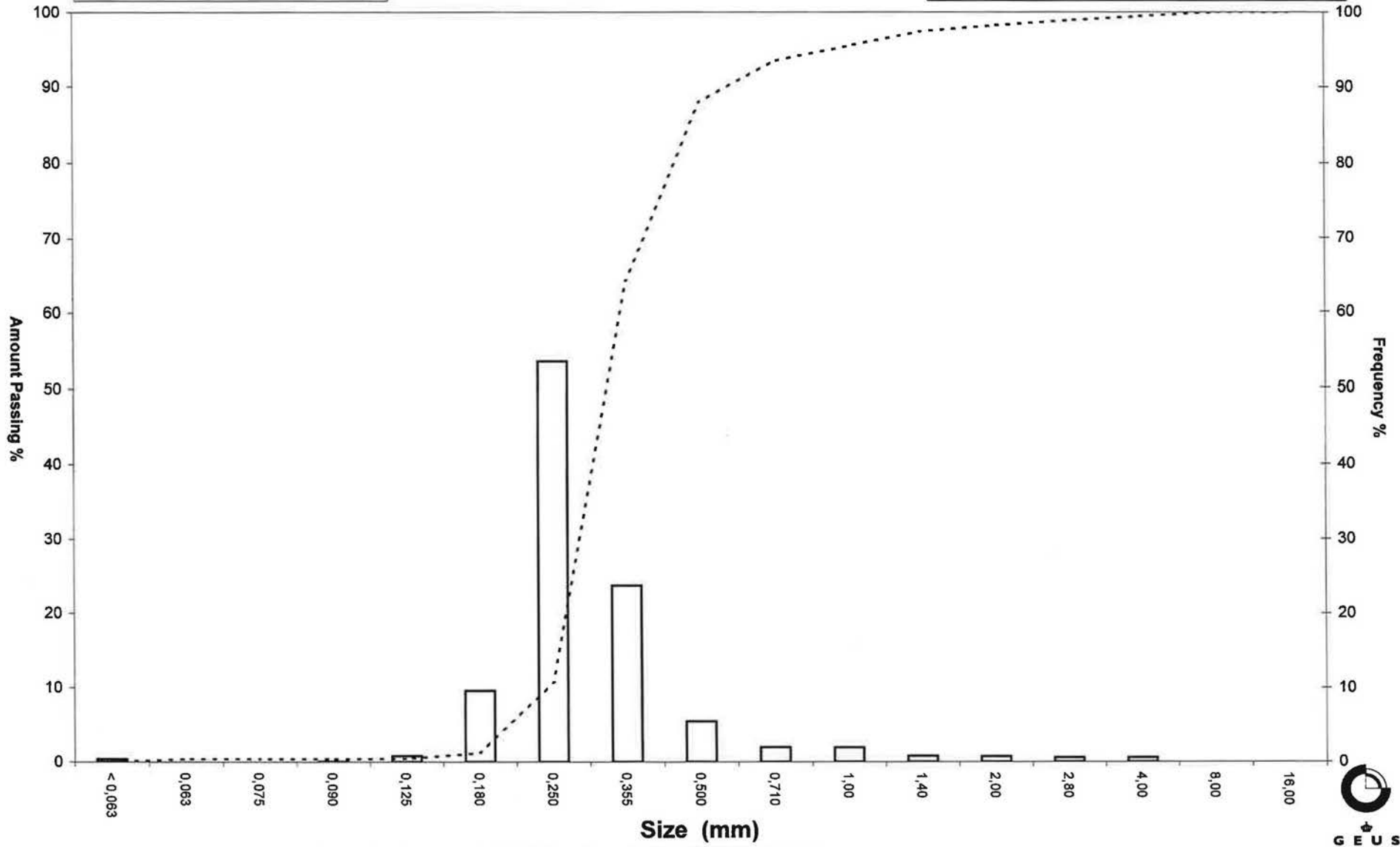
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dGF-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on  
 "Amount in sieve". Uniformity coefficient is based on  
 "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS015



# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS016  
**Lab. Id:** KF 16  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 103,83 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,37	0,36	99,64
2,80	-1,49	0,21	0,20	99,44
2,00	-1,00	0,24	0,23	99,21
1,40	-0,49	0,75	0,72	98,49
1,00	0,00	1,60	1,54	96,95
0,710	0,49	3,09	2,98	93,97
0,500	1,00	6,59	6,35	87,62
0,355	1,49	17,99	17,33	70,30
0,250	2,00	27,21	26,21	44,09
0,180	2,47	16,28	15,68	28,41
0,125	3,00	13,19	12,70	15,71
0,090	3,47	3,65	3,52	12,19
0,075	3,74	0,87	0,84	11,36
0,063	3,99	1,18	1,14	10,22
< 0,063	> 3,99	10,61	10,22	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

Size Class	Weight %
Silt and clay (< 0,063 mm)	10,22
Sand, fine (0,063 mm - 0,200 mm)	22,67
Sand, medium (0,2 mm - 0,6 mm)	57,75
Sand, coarse (0,6 mm - 2 mm)	8,56
Gravel (> 2 mm)	0,79
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,81	0,30
16%	84%	0,47	1,09
25%	75%	0,39	1,34
40%	60%	0,31	1,67
Median 50%	50%	0,27	1,87
75%	25%	0,17	2,60
84%	16%	0,13	2,99
90%	10%	-----	-----
95%	5%	-----	-----

## Moments Statistics

Mean	1,98
Sorting	-----
Skewness	-----
Kurtosis	-----
Uniformity Coefficient	-----

The analysis is executed according to DS405.9 DS/EN933-1 extended by sieves to the 1/2 phi scale.

Size Classes and Percentiles are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

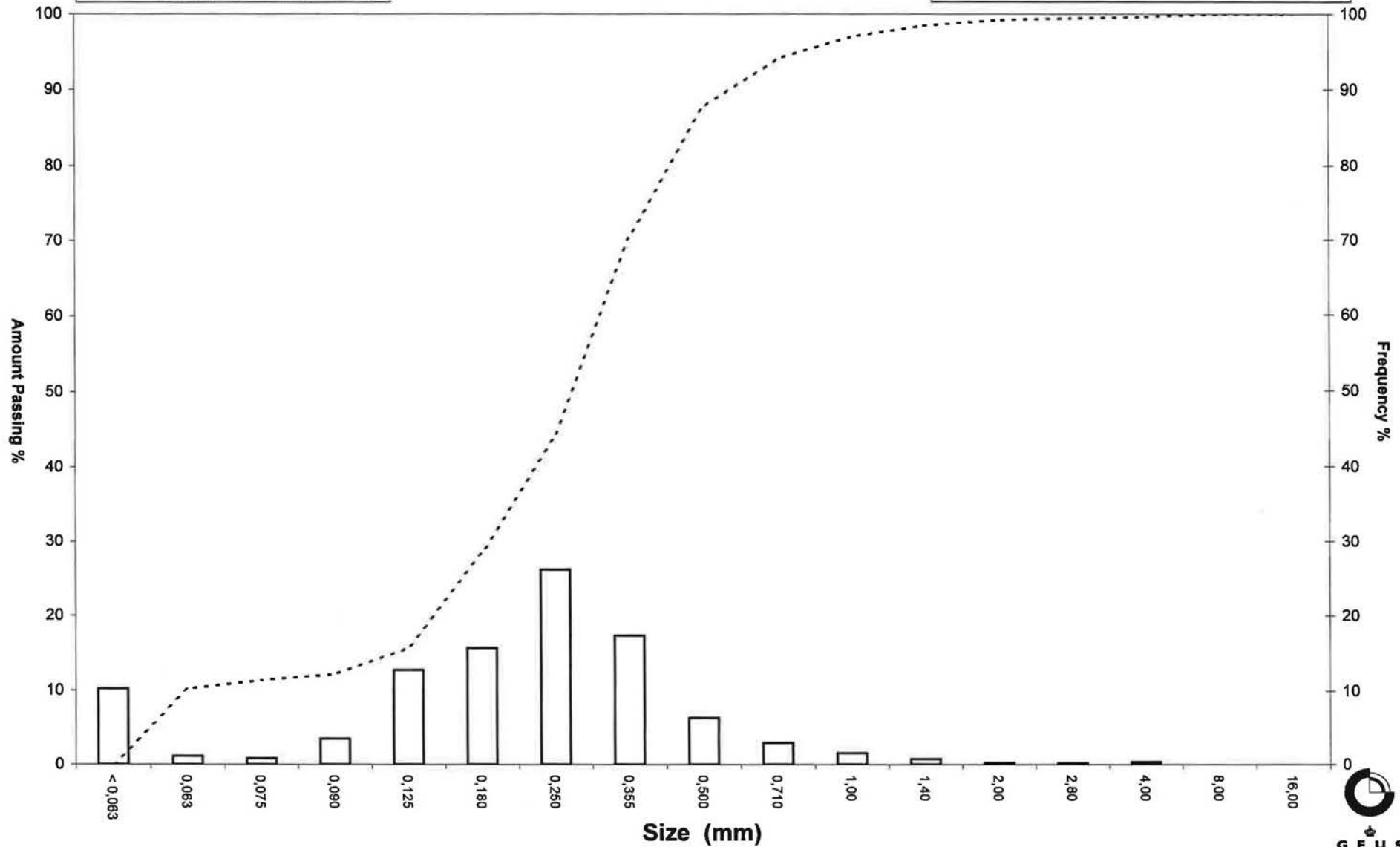
Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQQFGS016

Frequency Percent  
Cumulated Amount Passing





# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS017  
**Lab. Id:** KF 17  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 102,03 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,00	0,00	100,00
2,00	-1,00	0,00	0,00	100,00
1,40	-0,49	0,13	0,13	99,87
1,00	0,00	0,42	0,41	99,46
0,710	0,49	0,43	0,42	99,04
0,500	1,00	0,56	0,55	98,49
0,355	1,49	1,22	1,20	97,29
0,250	2,00	3,40	3,33	93,96
0,180	2,47	6,86	6,72	87,24
0,125	3,00	29,28	28,70	58,54
0,090	3,47	30,49	29,88	28,66
0,075	3,74	2,20	2,16	26,50
0,063	3,99	1,59	1,56	24,94
< 0,063	> 3,99	25,45	24,94	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

Size Class	Weight %
Silt and clay (< 0,063 mm)	24,94
Sand, fine (0,063 mm - 0,200 mm)	64,22
Sand, medium (0,2 mm - 0,6 mm)	9,59
Sand, coarse (0,6 mm - 2 mm)	1,25
Gravel (> 2 mm)	0,00
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,28	1,82
16%	84%	0,17	2,52
25%	75%	0,16	2,68
40%	60%	0,13	2,97
Median 50%	50%	0,11	3,12
75%	25%	0,06	3,98
84%	16%	-----	-----
90%	10%	-----	-----
95%	5%	-----	-----

## Moments Statistics

Mean	2,82
Sorting	-----
Skewness	-----
Kurtosis	-----
Uniformity Coefficient	-----

The analysis is executed according to DS405.9 DS/EN933-1 extended by sieves to the ½ phi scale.

Size Classes and Percentiles are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

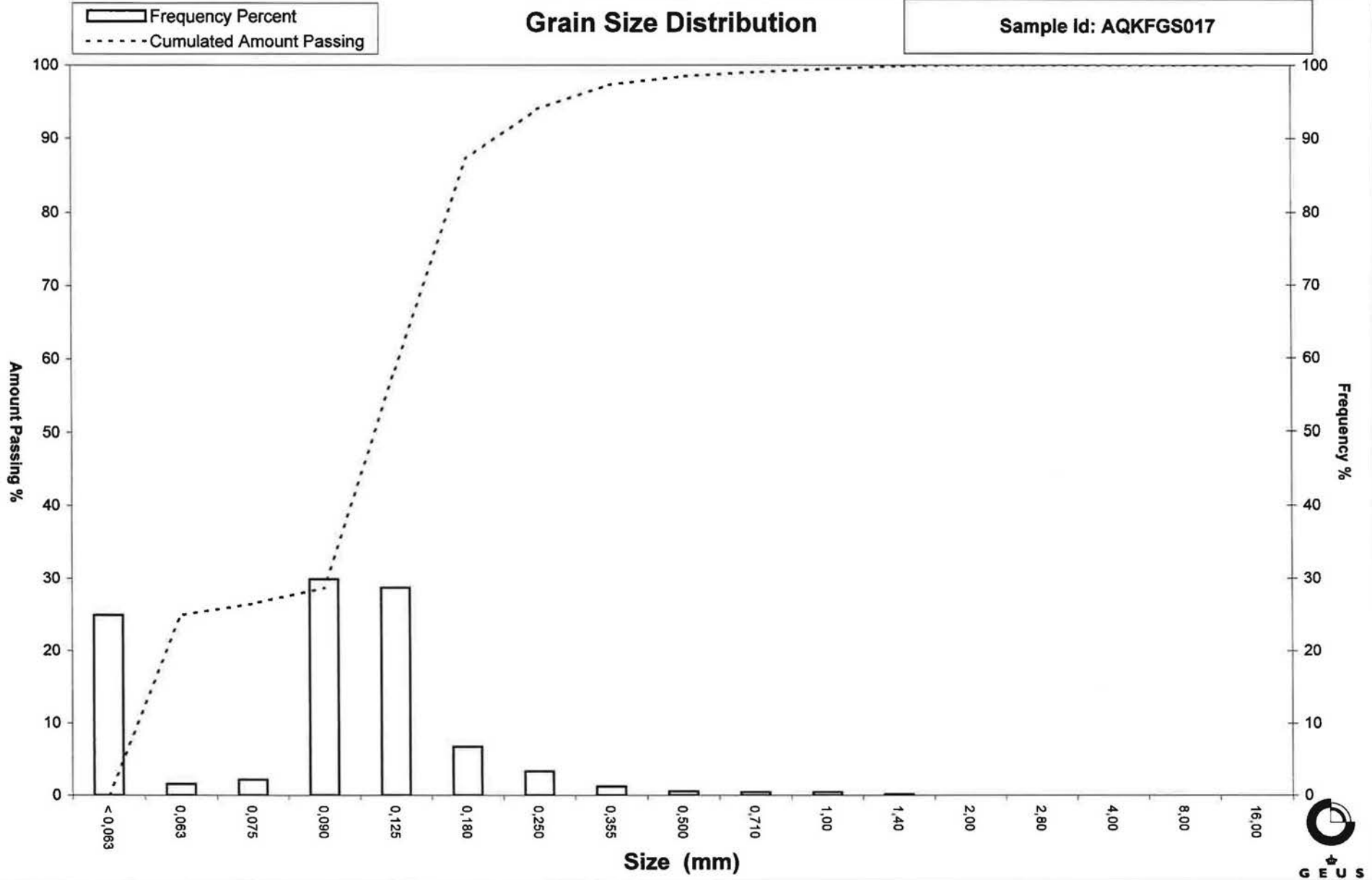
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS017



# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS018  
**Lab. Id:** KF 18  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 108,96 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount
mm	φ	g	%	amount passing
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	2,28	2,09	97,91
4,00	-2,00	2,66	2,44	95,47
2,80	-1,49	0,25	0,23	95,24
2,00	-1,00	0,67	0,61	94,62
1,40	-0,49	1,22	1,12	93,50
1,00	0,00	2,74	2,51	90,99
0,710	0,49	3,98	3,65	87,33
0,500	1,00	7,26	6,66	80,67
0,355	1,49	12,83	11,77	68,90
0,250	2,00	13,99	12,84	56,06
0,180	2,47	10,24	9,40	46,66
0,125	3,00	33,38	30,64	16,02
0,090	3,47	11,51	10,56	5,46
0,075	3,74	0,47	0,43	5,03
0,063	3,99	0,38	0,35	4,68
< 0,063	> 3,99	5,10	4,68	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

Size Class	Weight %
Silt and clay (< 0,063 mm)	4,68
Sand, fine (0,063 mm - 0,200 mm)	44,66
Sand, medium (0,2 mm - 0,6 mm)	34,50
Sand, coarse (0,6 mm - 2 mm)	10,78
Gravel (> 2 mm)	5,38
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	φ
Amount in sieve	Amount passing		
5%	95%	2,49	-1,32
16%	84%	0,60	0,73
25%	75%	0,43	1,22
40%	60%	0,28	1,82
Median 50%	50%	0,20	2,29
75%	25%	0,14	2,83
84%	16%	0,12	3,00
90%	10%	0,11	3,25
95%	5%	0,07	3,76

## Moments Statistics

Mean	2,00
Sorting	1,34
Skewness	-0,40
Kurtosis	1,29
Uniformity Coefficient	2,69

The analysis is executed according to DS405.9 DS/EN933-1 extended by sieves to the ½ phi scale.

Size Classes and Percentiles are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

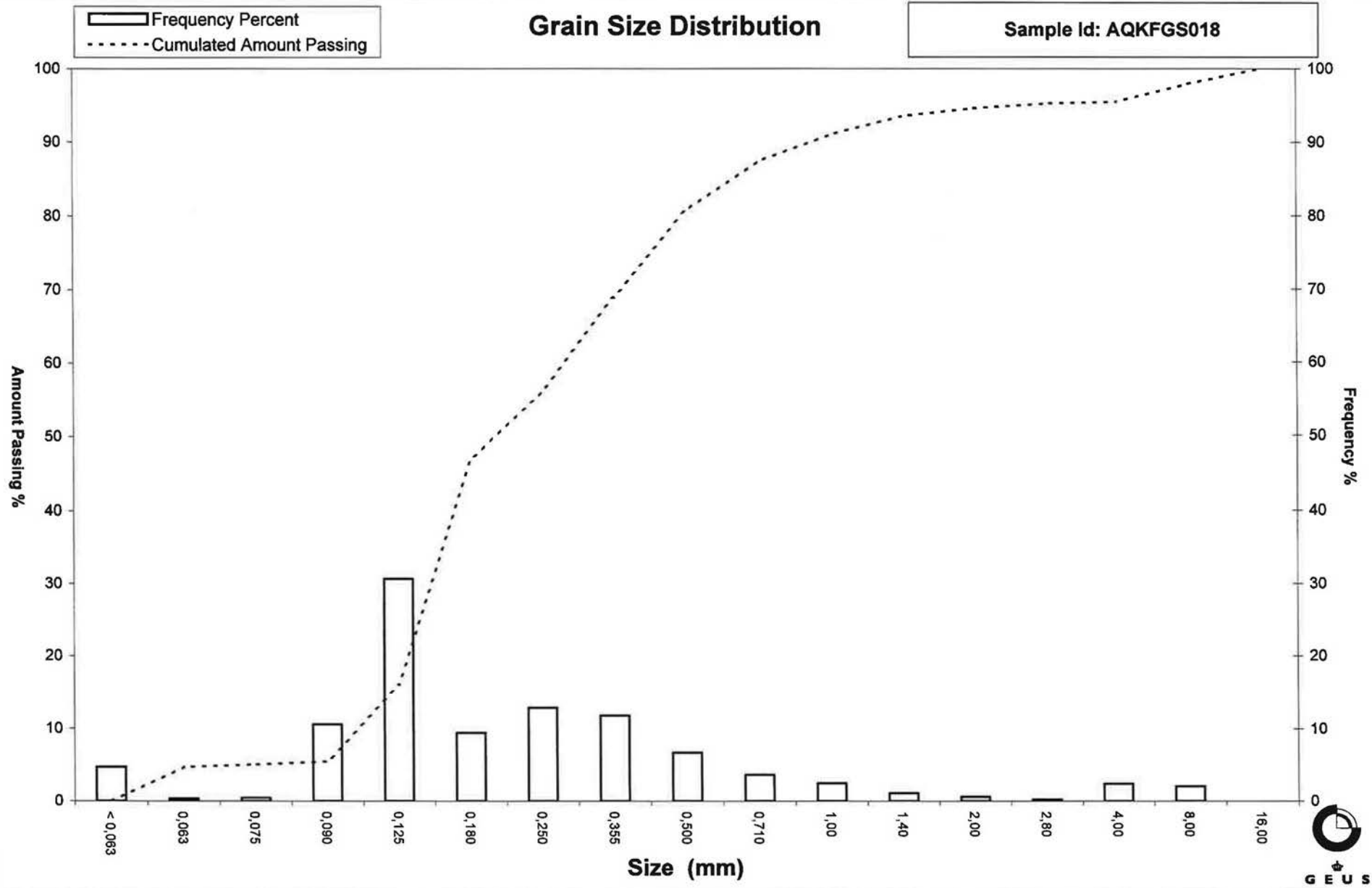
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS018



# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS019  
**Lab. Id:** KF 19  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 110,99 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,28	0,25	99,75
4,00	-2,00	0,00	0,00	99,75
2,80	-1,49	0,01	0,01	99,74
2,00	-1,00	0,01	0,01	99,73
1,40	-0,49	0,01	0,01	99,72
1,00	0,00	0,01	0,01	99,71
0,710	0,49	0,05	0,05	99,67
0,500	1,00	0,03	0,03	99,64
0,355	1,49	0,19	0,17	99,47
0,250	2,00	0,95	0,86	98,61
0,180	2,47	9,30	8,38	90,23
0,125	3,00	81,62	73,54	16,70
0,090	3,47	14,15	12,75	3,95
0,075	3,74	0,75	0,68	3,27
0,063	3,99	0,30	0,27	3,00
< 0,063	> 3,99	3,33	3,00	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	3,00
Sand, fine (0,063 mm - 0,200 mm):	89,63
Sand, medium (0,2 mm - 0,6 mm):	7,03
Sand, coarse (0,6 mm - 2 mm):	0,08
Gravel (> 2 mm):	0,27
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,22	2,19
16%	84%	0,18	2,51
25%	75%	0,17	2,57
40%	60%	0,16	2,67
Median 50%	50%	0,15	2,74
75%	25%	0,13	2,93
84%	16%	0,12	3,02
90%	10%	0,11	3,23
95%	5%	0,09	3,43

## Moments Statistics

Mean	2,76
Sorting	0,32
Skewness	0,11
Kurtosis	1,41
Uniformity Coefficient	1,48

The analysis is executed according to DS405.9  
 DS/EN933-1 extended by sieves to the 1/2 phi scale.

Size Classes and Percentiles  
 are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

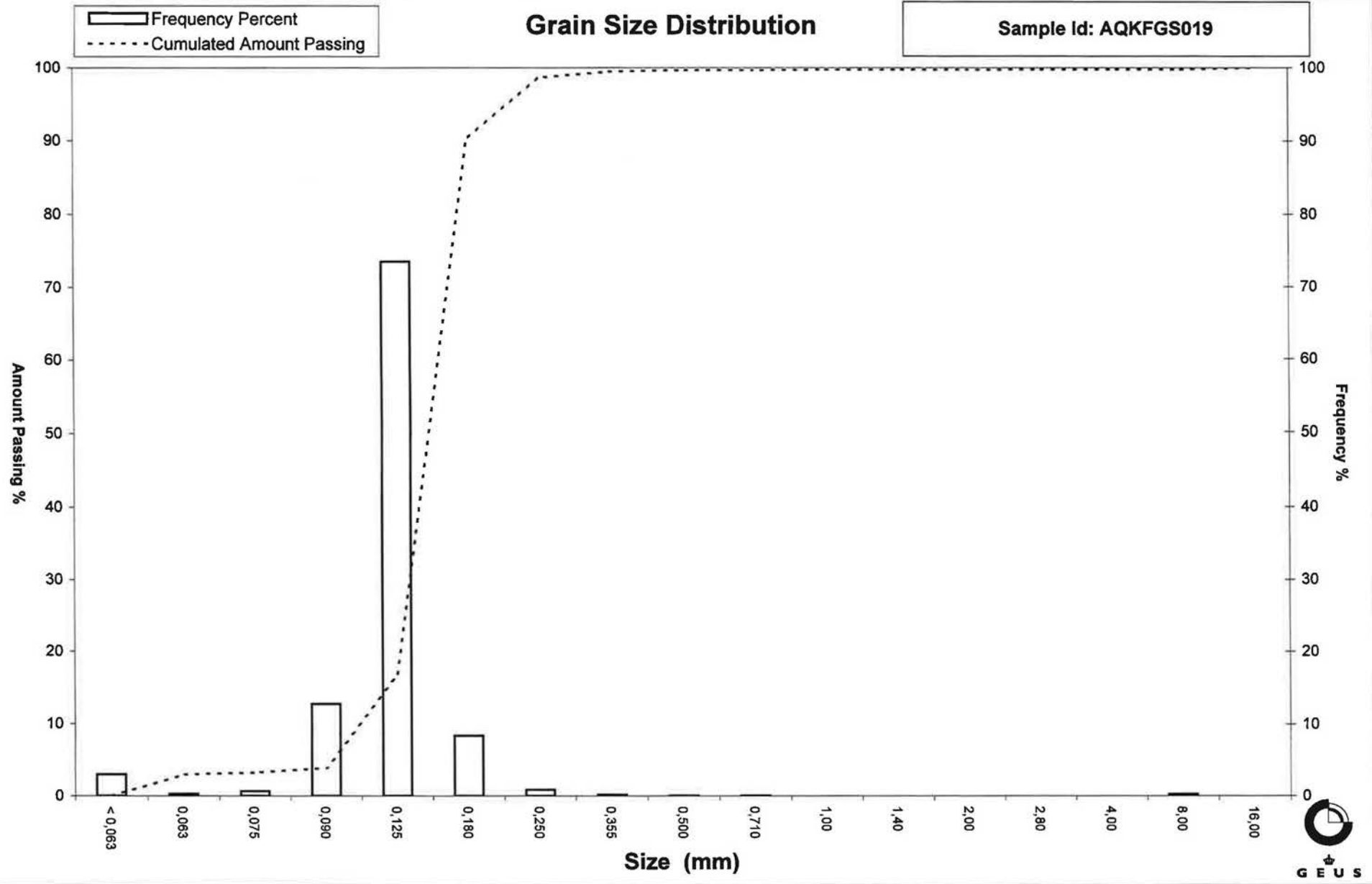
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on  
 "Amount in sieve". Uniformity coefficient is based on  
 "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS019



# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS020  
**Lab. Id:** KF 20  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 111,29 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,26	0,23	99,77
4,00	-2,00	0,32	0,29	99,48
2,80	-1,49	0,09	0,08	99,40
2,00	-1,00	0,00	0,00	99,40
1,40	-0,49	0,00	0,00	99,40
1,00	0,00	0,03	0,03	99,37
0,710	0,49	0,07	0,06	99,31
0,500	1,00	0,21	0,19	99,12
0,355	1,49	3,64	3,27	95,85
0,250	2,00	35,27	31,69	64,16
0,180	2,47	45,37	40,77	23,39
0,125	3,00	24,13	21,68	1,71
0,090	3,47	1,57	1,41	0,30
0,075	3,74	0,05	0,04	0,25
0,063	3,99	0,01	0,01	0,24
< 0,063	> 3,99	0,27	0,24	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

Size Class	Weight %
Silt and clay (< 0,063 mm):	0,24
Sand, fine (0,063 mm - 0,200 mm):	34,79
Sand, medium (0,2 mm - 0,6 mm):	64,17
Sand, coarse (0,6 mm - 2 mm):	0,19
Gravel (> 2 mm):	0,60
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,35	1,51
16%	84%	0,32	1,66
25%	75%	0,29	1,81
40%	60%	0,24	2,04
Median 50%	50%	0,23	2,15
75%	25%	0,18	2,45
84%	16%	0,16	2,63
90%	10%	0,15	2,78
95%	5%	0,13	2,91

## Moments Statistics

Mean	2,15
Sorting	0,45
Skewness	0,04
Kurtosis	0,89
Uniformity Coefficient	1,66

The analysis is executed according to DS405.9 DS/EN933-1 extended by sieves to the ½ phi scale.

Size Classes and Percentiles are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

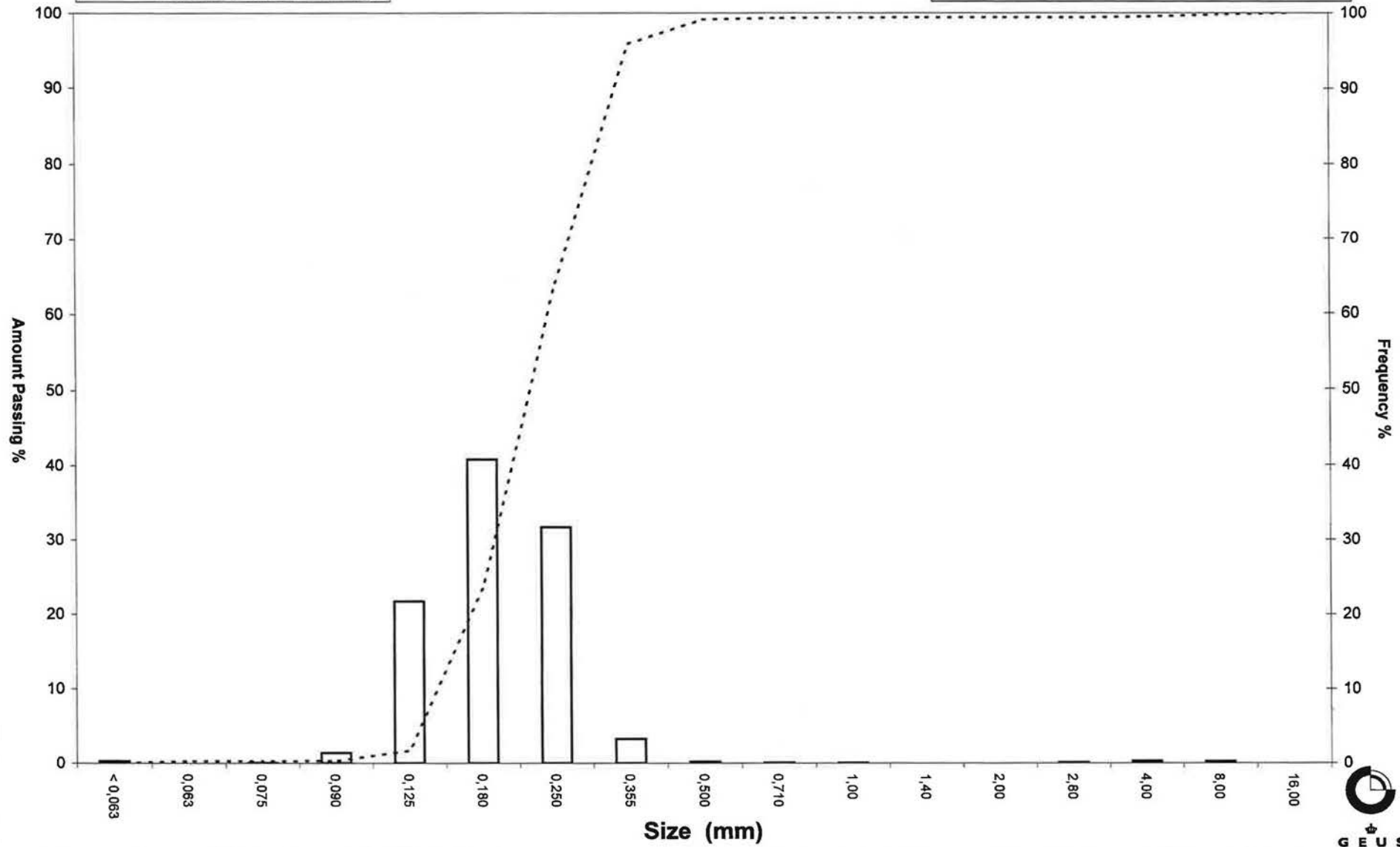
Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS020

Frequency Percent  
Cumulated Amount Passing





# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS021  
**Lab. Id:** KF 21  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 101,33 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount
mm	Φ	g	%	amount passing
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	1,98	1,95	98,05
2,80	-1,49	0,82	0,81	97,24
2,00	-1,00	1,68	1,66	95,58
1,40	-0,49	1,36	1,34	94,24
1,00	0,00	4,45	4,39	89,85
0,710	0,49	4,38	4,32	85,52
0,500	1,00	5,98	5,90	79,62
0,355	1,49	13,47	13,29	66,33
0,250	2,00	35,81	35,34	30,99
0,180	2,47	24,80	24,47	6,51
0,125	3,00	6,01	5,93	0,58
0,090	3,47	0,10	0,10	0,48
0,075	3,74	0,01	0,01	0,47
0,063	3,99	0,00	0,00	0,47
< 0,063	> 3,99	0,48	0,47	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

Size Class	Weight %
Silt and clay (< 0,063 mm):	0,47
Sand, fine (0,063 mm - 0,200 mm):	13,03
Sand, medium (0,2 mm - 0,6 mm):	68,93
Sand, coarse (0,6 mm - 2 mm):	13,15
Gravel (> 2 mm):	4,42
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	1,74	-0,80
16%	84%	0,66	0,61
25%	75%	0,45	1,15
40%	60%	0,34	1,57
Median 50%	50%	0,31	1,71
75%	25%	0,23	2,10
84%	16%	0,21	2,27
90%	10%	0,19	2,40
95%	5%	0,17	2,59

## Moments Statistics

Mean	1,53
Sorting	0,93
Skewness	-0,40
Kurtosis	1,46
Uniformity Coefficient	1,77

The analysis is executed according to DS405.9 DS/EN933-1 extended by sieves to the 1/2 phi scale.

Size Classes and Percentiles are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

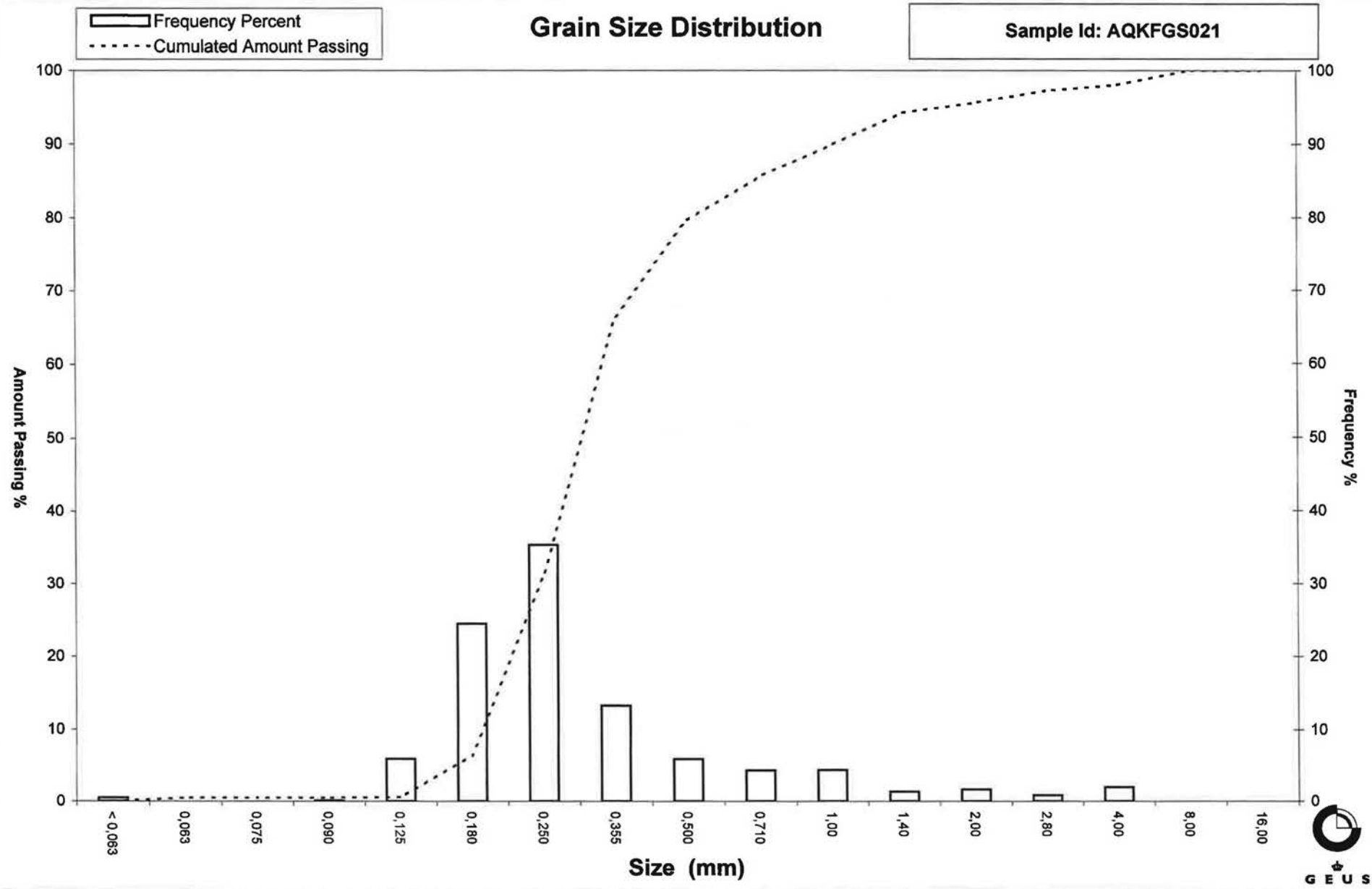
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS021



# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS022  
**Lab. Id:** KF 22  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 8 mm.



**Total Weight** 204,92 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	7,59	3,70	96,30
4,00	-2,00	10,08	4,92	91,38
2,80	-1,49	9,40	4,59	86,79
2,00	-1,00	13,28	6,48	80,31
1,40	-0,49	24,84	12,12	68,19
1,00	0,00	36,35	17,74	50,45
0,710	0,49	29,46	14,38	36,07
0,500	1,00	19,40	9,47	26,61
0,355	1,49	17,87	8,72	17,89
0,250	2,00	27,22	13,28	4,60
0,180	2,47	7,21	3,52	1,08
0,125	3,00	1,06	0,52	0,57
0,090	3,47	0,07	0,03	0,53
0,075	3,74	0,01	0,00	0,53
0,063	3,99	0,00	0,00	0,53
< 0,063	> 3,99	1,08	0,53	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

Size Class	Weight %
Silt and clay (< 0,063 mm)	0,53
Sand, fine (0,063 mm - 0,200 mm)	1,56
Sand, medium (0,2 mm - 0,6 mm)	29,03
Sand, coarse (0,6 mm - 2 mm)	49,20
Gravel (> 2 mm)	19,69
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	6,95	-2,80
16%	84%	2,46	-1,30
25%	75%	1,74	-0,80
40%	60%	1,22	-0,28
Median 50%	50%	0,99	0,01
75%	25%	0,47	1,08
84%	16%	0,34	1,56
90%	10%	0,29	1,77
95%	5%	0,25	1,98

## Moments Statistics

Mean	0,09
Sorting	1,44
Skewness	-0,05
Kurtosis	1,04
Uniformity Coefficient	4,15

The analysis is executed according to DS405.9 DS/EN933-1 extended by sieves to the 1/2 phi scale.

Size Classes and Percentiles are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

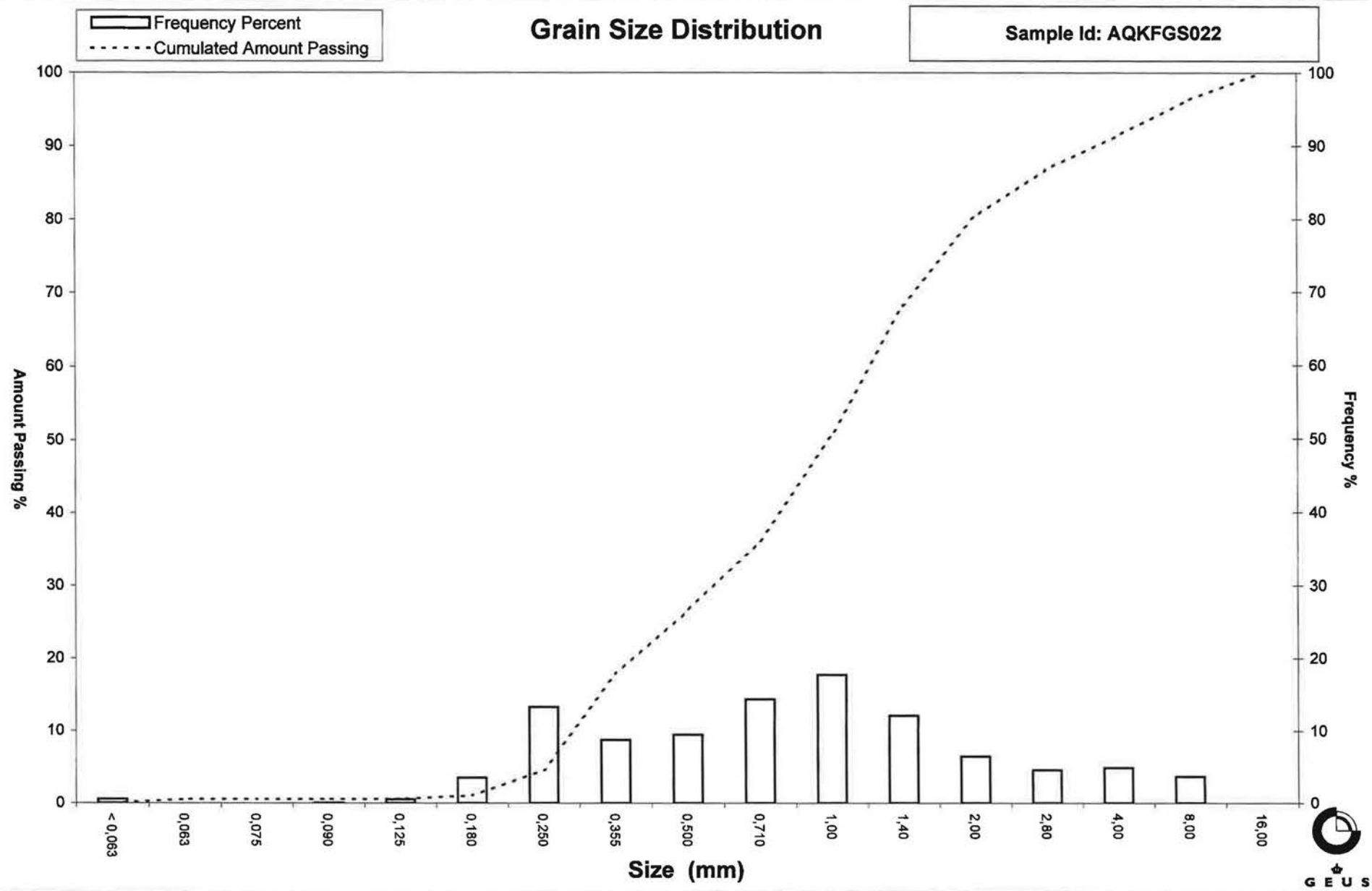
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS022



# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS023  
**Lab. Id:** KF 23  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A. Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 112,64 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	13,06	11,59	88,41
4,00	-2,00	4,41	3,92	84,49
2,80	-1,49	1,44	1,28	83,21
2,00	-1,00	1,46	1,30	81,92
1,40	-0,49	0,60	0,53	81,38
1,00	0,00	1,30	1,15	80,23
0,710	0,49	3,11	2,76	77,47
0,500	1,00	9,91	8,80	68,67
0,355	1,49	22,69	20,14	48,53
0,250	2,00	41,56	36,90	11,63
0,180	2,47	11,39	10,11	1,52
0,125	3,00	1,22	1,08	0,44
0,090	3,47	0,04	0,04	0,40
0,075	3,74	0,00	0,00	0,40
0,063	3,99	0,00	0,00	0,40
< 0,063	> 3,99	0,45	0,40	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	0,40
Sand, fine (0,063 mm - 0,200 mm):	4,01
Sand, medium (0,2 mm - 0,6 mm):	68,45
Sand, coarse (0,6 mm - 2 mm):	9,06
Gravel (> 2 mm):	18,08
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	12,55	-3,65
16%	84%	3,54	-1,82
25%	75%	0,65	0,62
40%	60%	0,44	1,19
Median 50%	50%	0,37	1,45
75%	25%	0,29	1,80
84%	16%	0,26	1,93
90%	10%	0,24	2,07
95%	5%	0,20	2,29

## Moments Statistics

Mean	0,52
Sorting	1,84
Skewness	-0,73
Kurtosis	2,07
Uniformity Coefficient	1,83

The analysis is executed according to DS405.9  
 DS/EN933-1 extended by sieves to the ½ phi scale.

Size Classes and Percentiles  
 are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

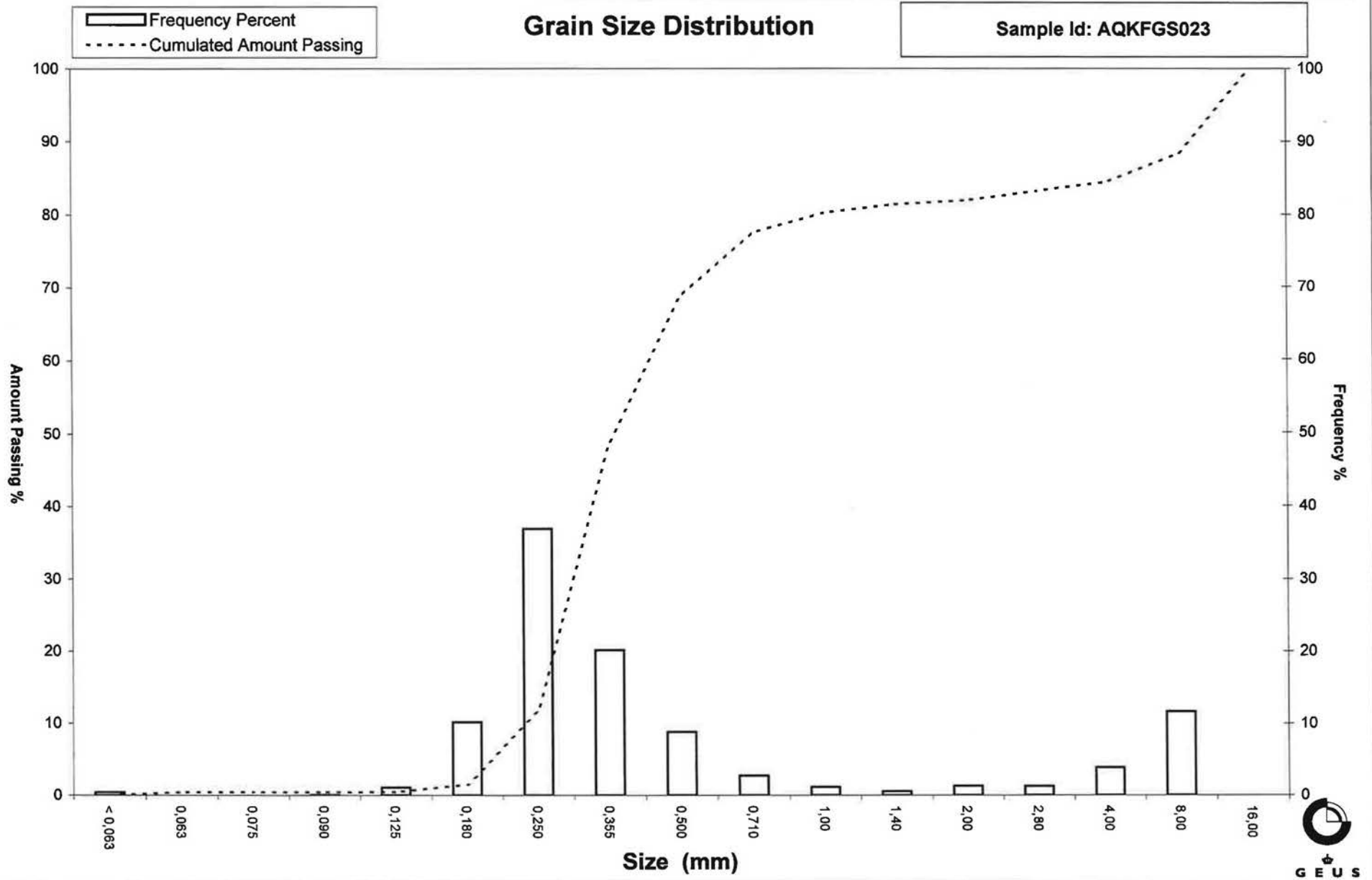
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS023



# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS024\_1  
**Lab. Id:** KF 24\_1  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 108,03 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	1,44	1,33	98,67
2,80	-1,49	0,43	0,40	98,27
2,00	-1,00	0,67	0,62	97,65
1,40	-0,49	1,35	1,25	96,40
1,00	0,00	3,34	3,09	93,31
0,710	0,49	6,16	5,70	87,61
0,500	1,00	7,85	7,27	80,34
0,355	1,49	31,72	29,36	50,98
0,250	2,00	48,29	44,70	6,28
0,180	2,47	6,14	5,68	0,59
0,125	3,00	0,39	0,36	0,23
0,090	3,47	0,01	0,01	0,22
0,075	3,74	0,00	0,00	0,22
0,063	3,99	0,00	0,00	0,22
< 0,063	> 3,99	0,24	0,22	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

Size Class	Weight %
Silt and clay (< 0,063 mm)	0,22
Sand, fine (0,063 mm - 0,200 mm)	1,99
Sand, medium (0,2 mm - 0,6 mm)	81,58
Sand, coarse (0,6 mm - 2 mm)	13,85
Gravel (> 2 mm)	2,35
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	1,22	-0,29
16%	84%	0,61	0,72
25%	75%	0,47	1,08
40%	60%	0,40	1,32
Median 50%	50%	0,35	1,50
75%	25%	0,29	1,77
84%	16%	0,27	1,87
90%	10%	0,26	1,95
95%	5%	0,23	2,09

## Moments Statistics

Mean	1,37
Sorting	0,65
Skewness	-0,43
Kurtosis	1,42
Uniformity Coefficient	1,54

The analysis is executed according to DS405.9  
 DS/EN933-1 extended by sieves to the 1/2 phi scale.

Size Classes and Percentiles  
 are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

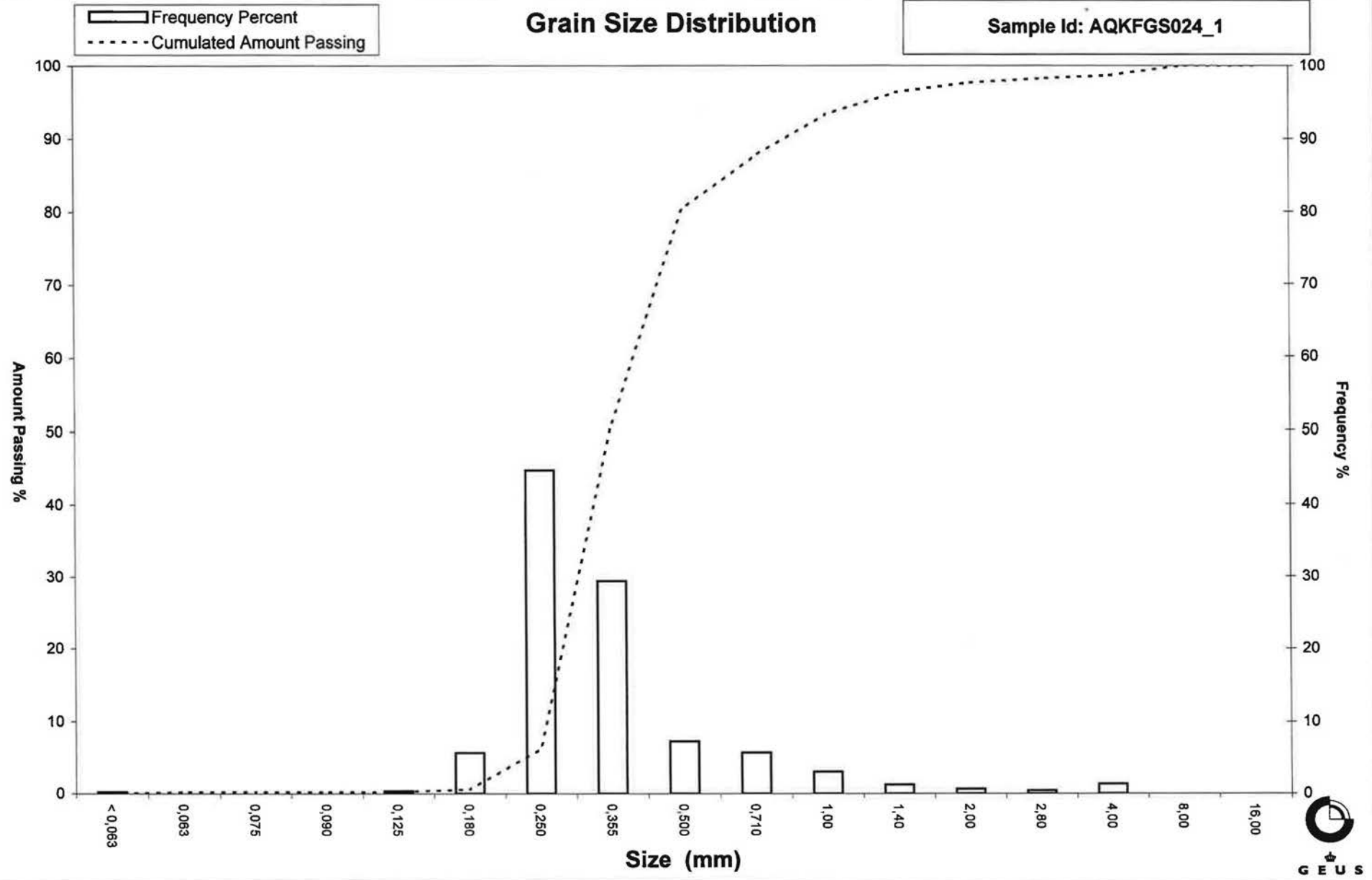
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS024\_1





# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS027  
**Lab. Id:** KF 27  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A. Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 104,89 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,15	0,14	99,86
2,00	-1,00	0,27	0,26	99,60
1,40	-0,49	0,33	0,31	99,28
1,00	0,00	0,71	0,68	98,61
0,710	0,49	0,72	0,69	97,92
0,500	1,00	2,56	2,44	95,48
0,355	1,49	28,28	26,96	68,52
0,250	2,00	57,51	54,83	13,69
0,180	2,47	13,04	12,43	1,26
0,125	3,00	1,14	1,09	0,17
0,090	3,47	0,04	0,04	0,13
0,075	3,74	0,01	0,01	0,12
0,063	3,99	0,00	0,00	0,12
< 0,063	> 3,99	0,13	0,12	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	0,12
Sand, fine (0,063 mm - 0,200 mm):	4,69
Sand, medium (0,2 mm - 0,6 mm):	91,83
Sand, coarse (0,6 mm - 2 mm):	2,96
Gravel (> 2 mm):	0,40
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,50	1,01
16%	84%	0,44	1,19
25%	75%	0,39	1,36
40%	60%	0,34	1,56
Median 50%	50%	0,32	1,65
75%	25%	0,27	1,88
84%	16%	0,25	1,97
90%	10%	0,23	2,13
95%	5%	0,20	2,31

## Moments Statistics

Mean	1,60
Sorting	0,39
Skewness	-0,07
Kurtosis	1,03
Uniformity Coefficient	1,48

The analysis is executed according to DS405.9  
 DS/EN933-1 extended by sieves to the ½ phi scale.

Size Classes and Percentiles  
 are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

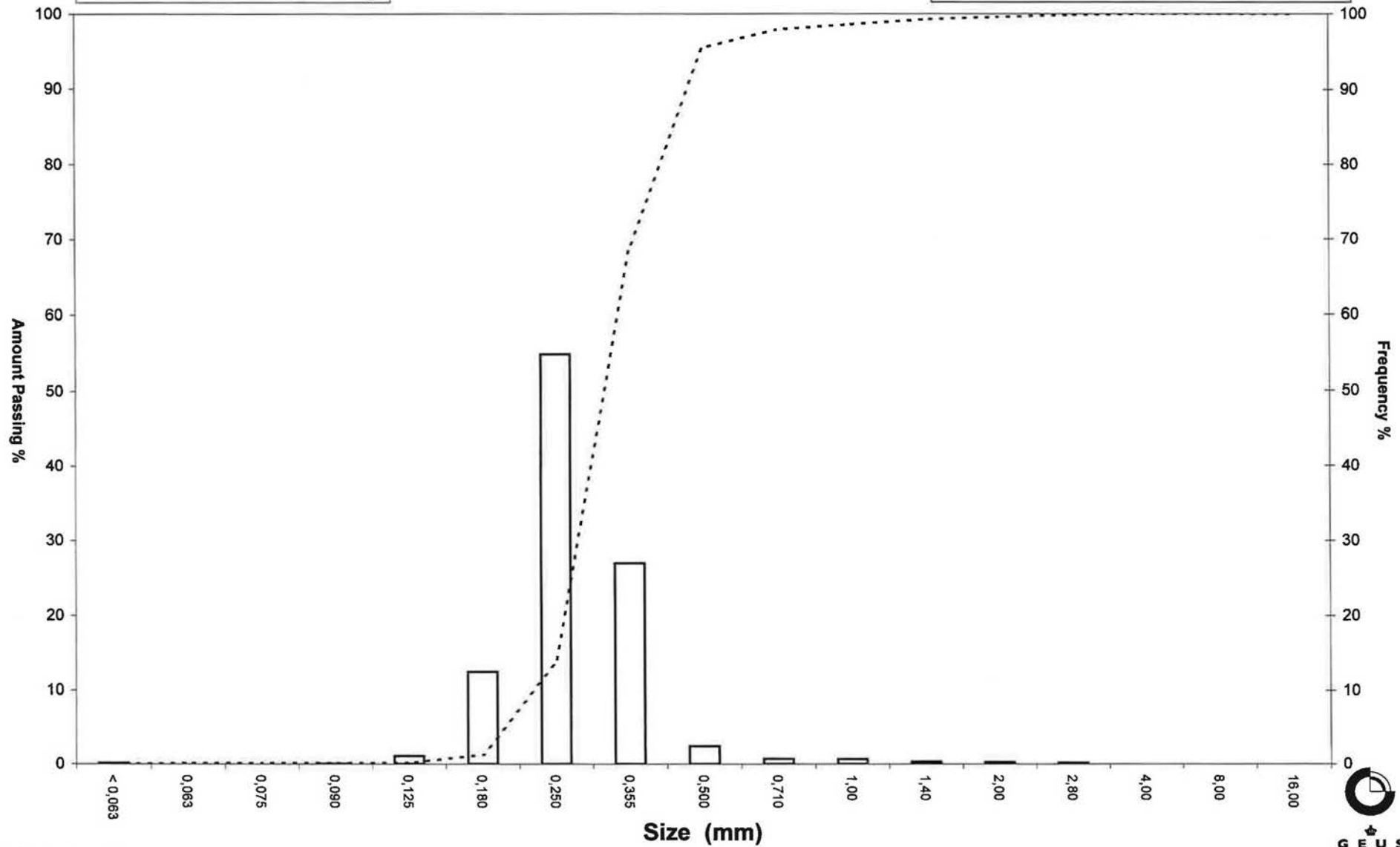
Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS027

Frequency Percent  
Cumulated Amount Passing



# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS030  
**Lab. Id:** KF 30  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 16 mm.



**Total Weight** 1586,92 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount
mm	Φ	g	%	amount passing %
16,00	-4,00	117,77	7,42	92,58
8,00	-3,00	86,92	5,48	87,10
4,00	-2,00	127,95	8,06	79,04
2,80	-1,49	102,22	6,44	72,60
2,00	-1,00	132,74	8,36	64,23
1,40	-0,49	171,06	10,78	53,45
1,00	0,00	172,41	10,86	42,59
0,710	0,49	141,02	8,89	33,70
0,500	1,00	160,38	10,11	23,60
0,355	1,49	122,18	7,70	15,90
0,250	2,00	78,34	4,94	10,96
0,180	2,47	78,59	4,95	6,01
0,125	3,00	73,20	4,61	1,40
0,090	3,47	6,14	0,39	1,01
0,075	3,74	0,76	0,05	0,96
0,063	3,99	0,67	0,04	0,92
< 0,063	> 3,99	14,57	0,92	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

Size Class	Weight %
Silt and clay (< 0,063 mm):	0,92
Sand, fine (0,063 mm - 0,200 mm):	6,50
Sand, medium (0,2 mm - 0,6 mm):	20,99
Sand, coarse (0,6 mm - 2 mm):	35,82
Gravel (> 2 mm):	35,77
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	-----	-----
16%	84%	6,46	-2,69
25%	75%	3,25	-1,70
40%	60%	1,76	-0,82
Median 50%	50%	1,27	-0,35
75%	25%	0,53	0,92
84%	16%	0,36	1,49
90%	10%	0,24	2,08
95%	5%	0,17	2,57

## Moments Statistics

Mean	-0,52
Sorting	-----
Skewness	-----
Kurtosis	-----
Uniformity Coefficient	7,46

The analysis is executed according to DS405.9 DS/EN933-1 extended by sieves to the 1/2 phi scale.

Size Classes and Percentiles are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

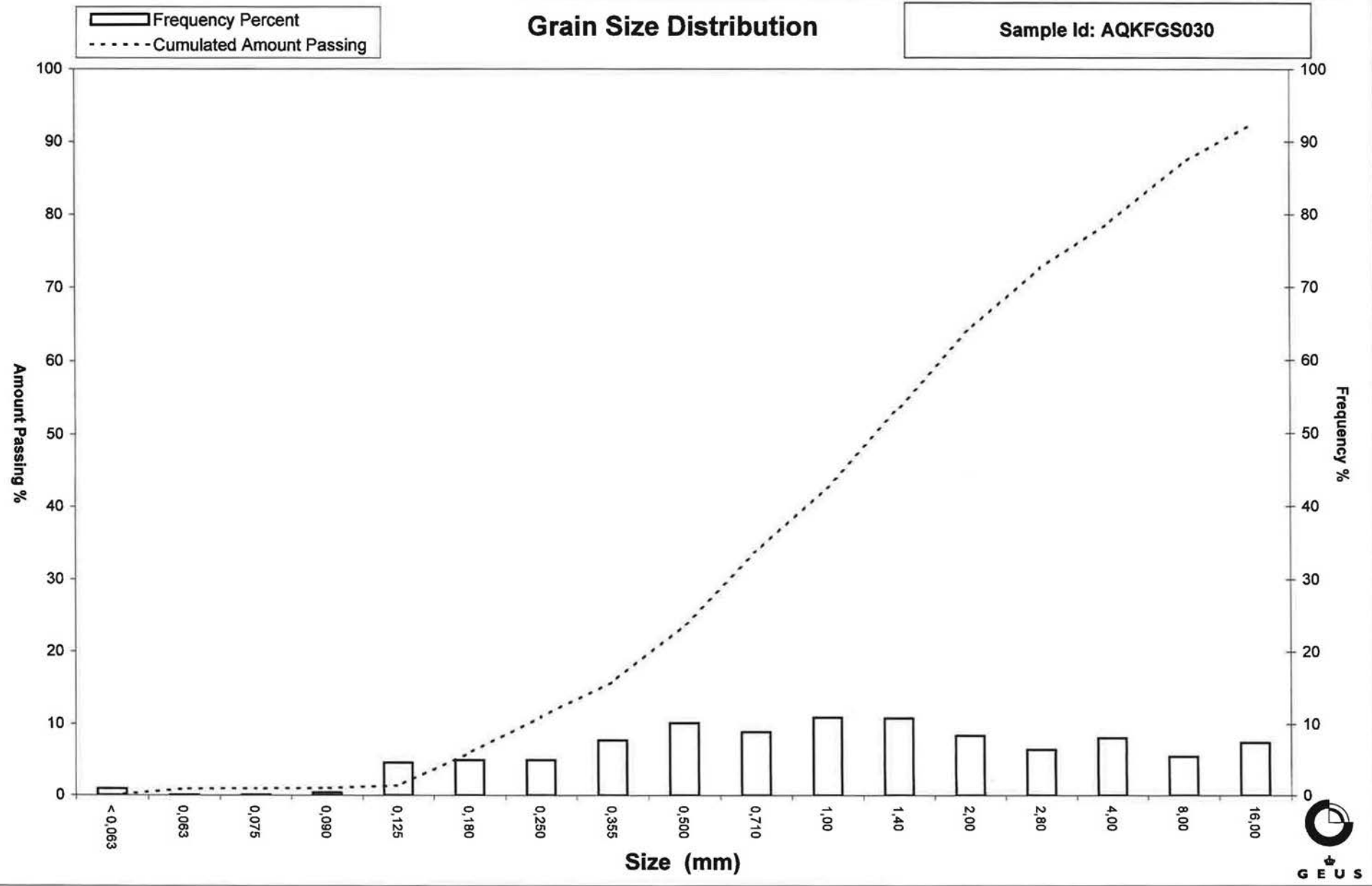
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQQFGS030



# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS031  
**Lab. Id:** KF 31  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 16mm. 669,73 g >32mm tillagt 16 mm



**Total Weight** 1606,62 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	976,62	60,79	39,21
8,00	-3,00	202,54	12,61	26,61
4,00	-2,00	97,26	6,05	20,55
2,80	-1,49	30,32	1,89	18,67
2,00	-1,00	19,25	1,20	17,47
1,40	-0,49	11,85	0,74	16,73
1,00	0,00	13,82	0,86	15,87
0,710	0,49	9,28	0,58	15,29
0,500	1,00	11,36	0,71	14,58
0,355	1,49	32,95	2,05	12,53
0,250	2,00	106,91	6,65	5,88
0,180	2,47	70,27	4,37	1,51
0,125	3,00	13,34	0,83	0,68
0,090	3,47	1,37	0,09	0,59
0,075	3,74	0,18	0,01	0,58
0,063	3,99	0,14	0,01	0,57
< 0,063	> 3,99	9,16	0,57	0,00

Sieve Analysis

Gravel  
Sand

## Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	0,57
Sand, fine (0,063 mm - 0,200 mm):	2,19
Sand, medium (0,2 mm - 0,6 mm):	12,17
Sand, coarse (0,6 mm - 2 mm):	2,55
Gravel (> 2 mm):	82,53
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	-----	-----
16%	84%	-----	-----
25%	75%	-----	-----
40%	60%	-----	-----
Median 50%	50%	-----	-----
75%	25%	6,94	-2,79
84%	16%	1,06	-0,09
90%	10%	0,32	1,67
95%	5%	0,24	2,08

## Moments Statistics

Mean	-0,09
Sorting	-----
Skewness	-----
Kurtosis	-----
Uniformity Coefficient	-----

The analysis is executed according to DS405.9 DS/EN933-1 extended by sieves to the 1/2 phi scale.

Size Classes and Percentiles are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

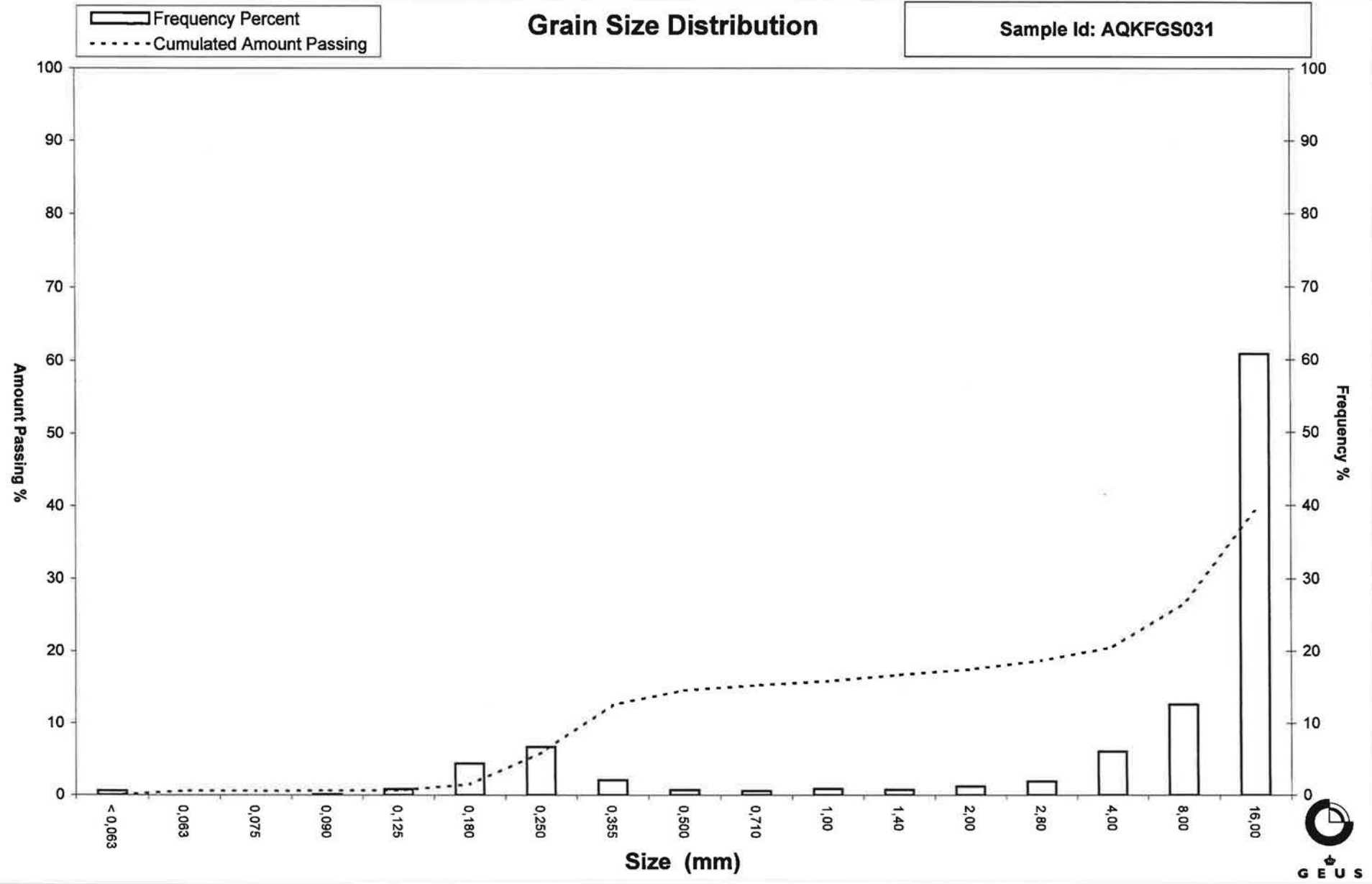
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS031



# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS033  
**Lab. Id:** KF 33  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 109,26 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount
mm	Φ	g	%	amount passing %
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	11,70	10,71	89,29
4,00	-2,00	3,12	2,86	86,44
2,80	-1,49	1,89	1,73	84,71
2,00	-1,00	3,70	3,39	81,32
1,40	-0,49	1,68	1,54	79,78
1,00	0,00	1,53	1,40	78,38
0,710	0,49	1,18	1,08	77,30
0,500	1,00	1,45	1,33	75,97
0,355	1,49	7,84	7,18	68,80
0,250	2,00	36,26	33,19	35,61
0,180	2,47	31,91	29,21	6,41
0,125	3,00	6,73	6,16	0,25
0,090	3,47	0,22	0,20	0,05
0,075	3,74	0,00	0,00	0,05
0,063	3,99	0,00	0,00	0,05
< 0,063	> 3,99	0,05	0,05	0,00

Sieve Analysis

Gravel  
Sand

## Size Classes (DGF-Bulletin 1 1988)

Size Class	Weight %
Silt and clay (< 0,063 mm)	0,05
Sand, fine (0,063 mm - 0,200 mm)	14,71
Sand, medium (0,2 mm - 0,6 mm)	61,86
Sand, coarse (0,6 mm - 2 mm)	4,71
Gravel (> 2 mm)	18,68
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	12,26	-3,62
16%	84%	2,63	-1,40
25%	75%	0,48	1,06
40%	60%	0,33	1,61
Median 50%	50%	0,30	1,76
75%	25%	0,22	2,15
84%	16%	0,20	2,30
90%	10%	0,19	2,41
95%	5%	0,17	2,58

## Moments Statistics

Mean	0,89
Sorting	1,86
Skewness	-0,72
Kurtosis	2,31
Uniformity Coefficient	1,73

The analysis is executed according to DS405.9 DS/EN933-1 extended by sieves to the 1/2 phi scale.

Size Classes and Percentiles are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

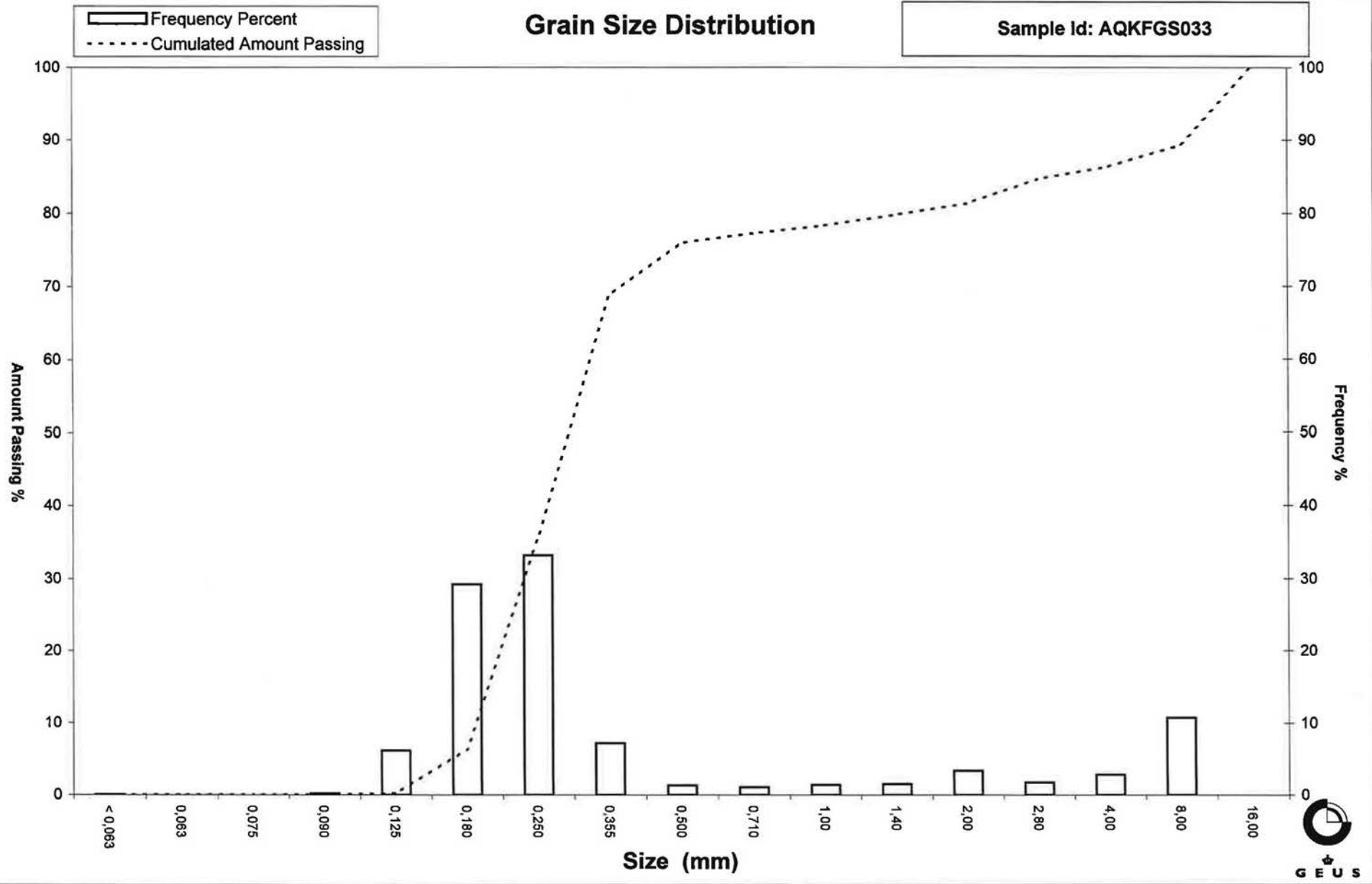
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQQFGS033





# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS034  
**Lab. Id:** KF 34  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 105,4 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,00	0,00	100,00
2,00	-1,00	0,00	0,00	100,00
1,40	-0,49	0,02	0,02	99,98
1,00	0,00	0,28	0,27	99,72
0,710	0,49	0,92	0,87	98,84
0,500	1,00	3,40	3,23	95,62
0,355	1,49	17,36	16,47	79,15
0,250	2,00	50,09	47,52	31,62
0,180	2,47	28,46	27,00	4,62
0,125	3,00	4,49	4,26	0,36
0,090	3,47	0,17	0,16	0,20
0,075	3,74	0,01	0,01	0,19
0,063	3,99	0,00	0,00	0,19
< 0,063	> 3,99	0,20	0,19	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

Size Class	Weight %
Silt and clay (< 0,063 mm):	0,19
Sand, fine (0,063 mm - 0,200 mm):	12,15
Sand, medium (0,2 mm - 0,6 mm):	84,82
Sand, coarse (0,6 mm - 2 mm):	2,85
Gravel (> 2 mm):	0,00
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	φ
Amount in sieve	Amount passing		
5%	95%	0,49	1,02
16%	84%	0,40	1,33
25%	75%	0,35	1,53
40%	60%	0,31	1,68
Median 50%	50%	0,29	1,78
75%	25%	0,23	2,10
84%	16%	0,21	2,25
90%	10%	0,19	2,37
95%	5%	0,18	2,47

## Moments Statistics

Mean	1,79
Sorting	0,45
Skewness	-0,02
Kurtosis	1,04
Uniformity Coefficient	1,61

The analysis is executed according to DS405.9 DS/EN933-1 extended by sieves to the 1/2 phi scale.

Size Classes and Percentiles are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

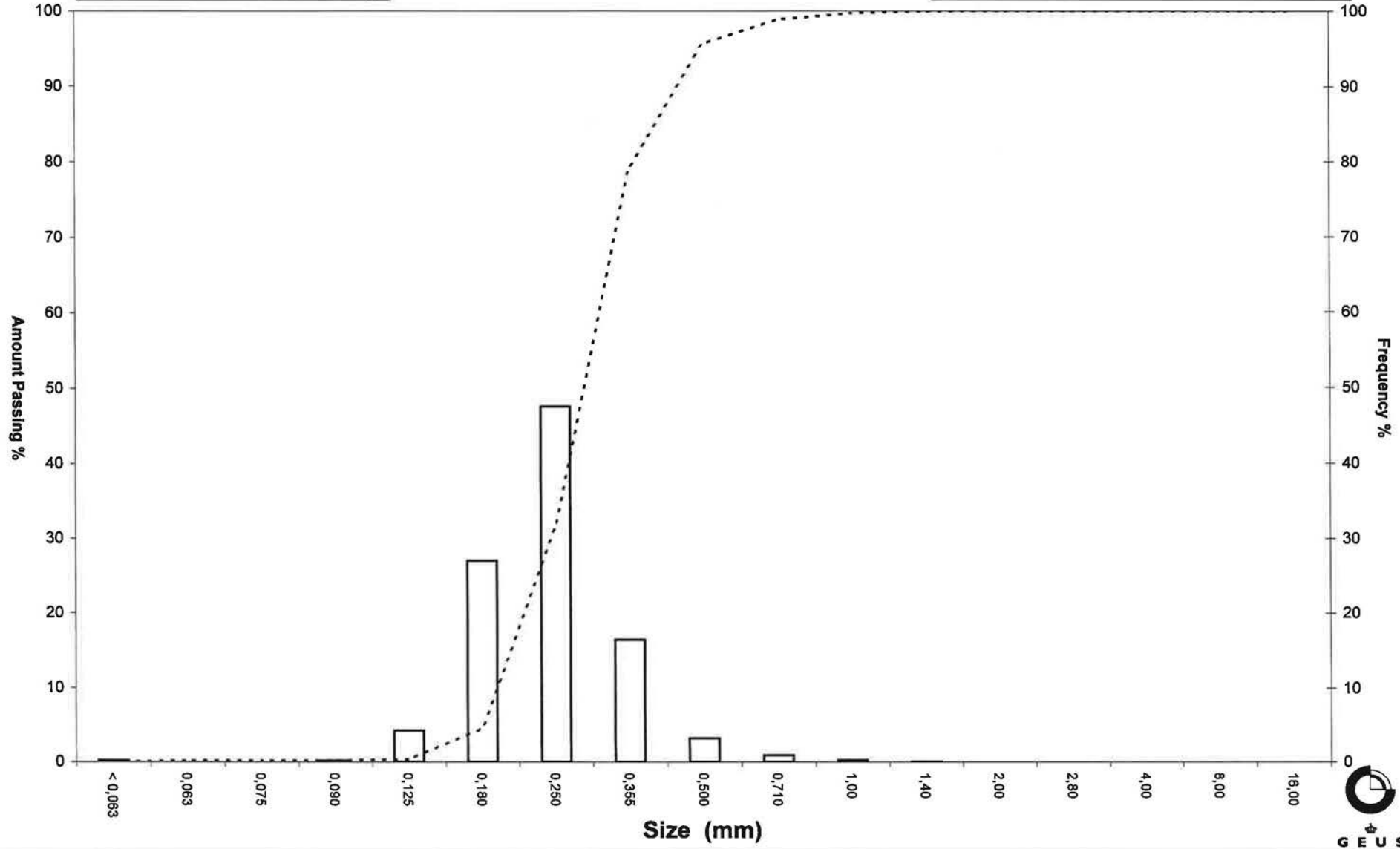
Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS034

Frequency Percent  
Cumulated Amount Passing



# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS035  
**Lab. Id:** KF 35  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 101,09 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,00	0,00	100,00
2,00	-1,00	0,00	0,00	100,00
1,40	-0,49	0,05	0,05	99,95
1,00	0,00	0,28	0,28	99,67
0,710	0,49	0,92	0,91	98,76
0,500	1,00	3,87	3,83	94,94
0,355	1,49	17,62	17,43	77,51
0,250	2,00	50,08	49,54	27,97
0,180	2,47	24,00	23,74	4,22
0,125	3,00	4,11	4,07	0,16
0,090	3,47	0,13	0,13	0,03
0,075	3,74	0,01	0,01	0,02
0,063	3,99	0,00	0,00	0,02
< 0,063	> 3,99	0,02	0,02	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

Size Class	Weight %
Silt and clay (< 0,063 mm):	0,02
Sand, fine (0,063 mm - 0,200 mm):	10,99
Sand, medium (0,2 mm - 0,6 mm):	85,75
Sand, coarse (0,6 mm - 2 mm):	3,24
Gravel (> 2 mm):	0,00
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	φ
Amount in sieve	Amount passing		
5%	95%	0,50	0,99
16%	84%	0,41	1,29
25%	75%	0,35	1,52
40%	60%	0,32	1,65
Median 50%	50%	0,30	1,75
75%	25%	0,24	2,05
84%	16%	0,21	2,22
90%	10%	0,20	2,34
95%	5%	0,18	2,46

## Moments Statistics

Mean	1,75
Sorting	0,45
Skewness	-0,02
Kurtosis	1,12
Uniformity Coefficient	1,61

The analysis is executed according to DS405.9 DS/EN933-1 extended by sieves to the 1/2 phi scale.

Size Classes and Percentiles are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

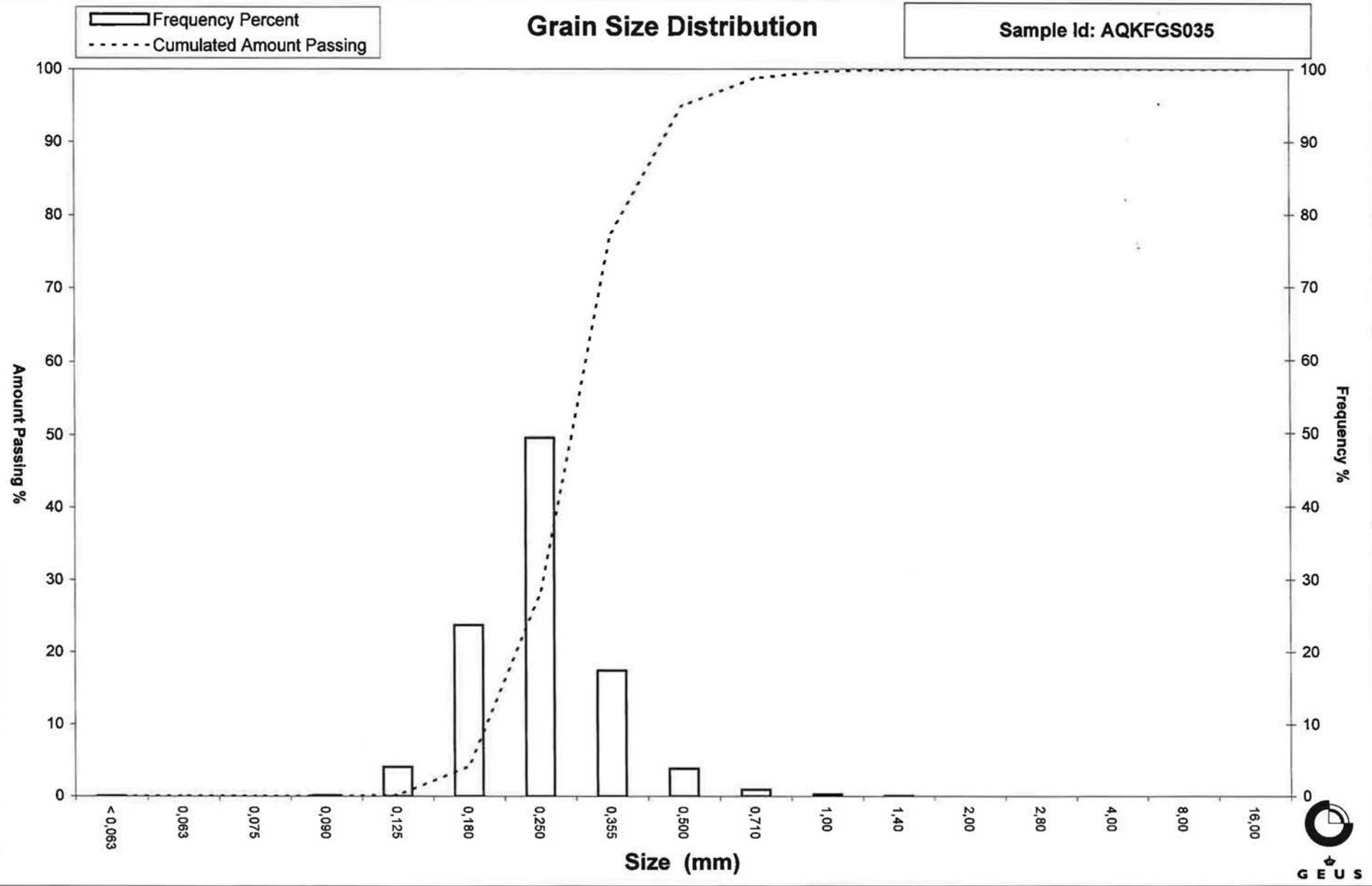
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS035



# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS036  
**Lab. Id:** KF 36  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.NB: AQKFGS036 udenpå pose AQKFGS056 i pose



**Total Weight** 114,32 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount
mm	Φ	g	%	amount passing %
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,00	0,00	100,00
2,00	-1,00	0,26	0,23	99,77
1,40	-0,49	0,57	0,50	99,27
1,00	0,00	5,85	5,12	94,16
0,710	0,49	10,44	9,13	85,02
0,500	1,00	19,34	16,92	68,11
0,355	1,49	32,14	28,11	39,99
0,250	2,00	37,28	32,61	7,38
0,180	2,47	7,44	6,51	0,87
0,125	3,00	0,80	0,70	0,17
0,090	3,47	0,04	0,03	0,14
0,075	3,74	0,01	0,01	0,13
0,063	3,99	0,00	0,00	0,13
< 0,063	> 3,99	0,15	0,13	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

Size Class	Weight %
Silt and clay (< 0,063 mm)	0,13
Sand, fine (0,063 mm - 0,200 mm)	2,60
Sand, medium (0,2 mm - 0,6 mm)	73,43
Sand, coarse (0,6 mm - 2 mm)	23,61
Gravel (> 2 mm)	0,23
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	1,07	-0,09
16%	84%	0,70	0,52
25%	75%	0,59	0,77
40%	60%	0,46	1,13
Median 50%	50%	0,41	1,30
75%	25%	0,31	1,70
84%	16%	0,28	1,85
90%	10%	0,26	1,95
95%	5%	0,22	2,16

## Moments Statistics

Mean	1,22
Sorting	0,67
Skewness	-0,20
Kurtosis	0,99
Uniformity Coefficient	1,77

The analysis is executed according to DS405.9 DS/EN933-1 extended by sieves to the 1/2 phi scale.

Size Classes and Percentiles are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

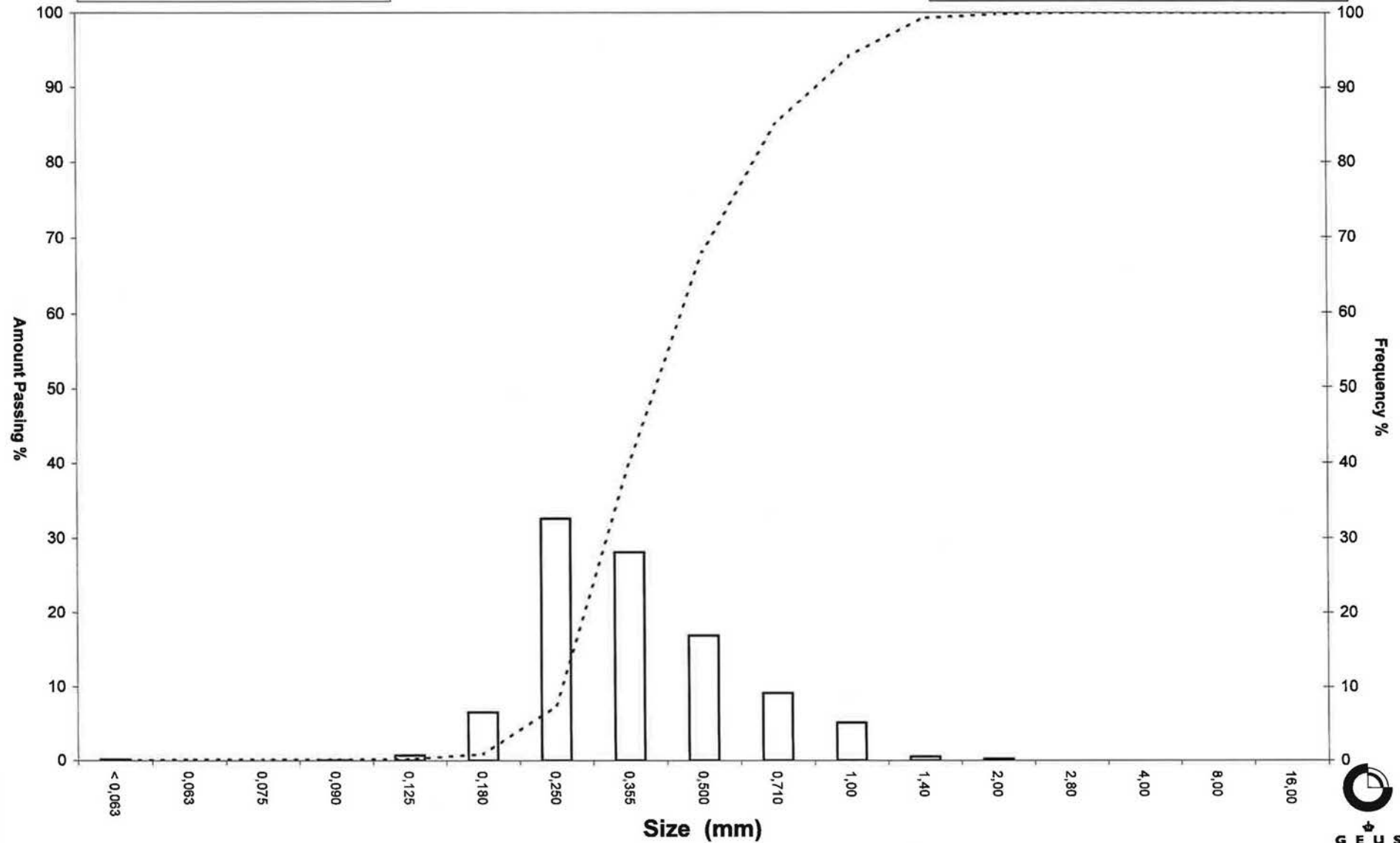
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dGF-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS036



# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS037  
**Lab. Id:** KF 37  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 108,36 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,26	0,24	99,76
2,80	-1,49	0,03	0,03	99,73
2,00	-1,00	0,32	0,30	99,44
1,40	-0,49	0,37	0,34	99,10
1,00	0,00	0,64	0,59	98,50
0,710	0,49	1,48	1,37	97,14
0,500	1,00	4,41	4,07	93,07
0,355	1,49	16,14	14,89	78,17
0,250	2,00	59,64	55,04	23,14
0,180	2,47	21,83	20,15	2,99
0,125	3,00	2,94	2,71	0,28
0,090	3,47	0,02	0,02	0,26
0,075	3,74	0,01	0,01	0,25
0,063	3,99	0,00	0,00	0,25
< 0,063	> 3,99	0,27	0,25	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

Size Class	Weight %
Silt and clay (< 0,063 mm)	0,25
Sand, fine (0,063 mm - 0,200 mm)	8,50
Sand, medium (0,2 mm - 0,6 mm)	86,26
Sand, coarse (0,6 mm - 2 mm)	4,43
Gravel (> 2 mm)	0,56
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,60	0,74
16%	84%	0,41	1,28
25%	75%	0,35	1,52
40%	60%	0,32	1,64
Median 50%	50%	0,30	1,73
75%	25%	0,25	1,98
84%	16%	0,23	2,15
90%	10%	0,20	2,29
95%	5%	0,19	2,42

## Moments Statistics

Mean	1,72
Sorting	0,47
Skewness	-0,11
Kurtosis	1,50
Uniformity Coefficient	1,57

The analysis is executed according to DS405.9 DS/EN933-1 extended by sieves to the ½ phi scale.

Size Classes and Percentiles are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

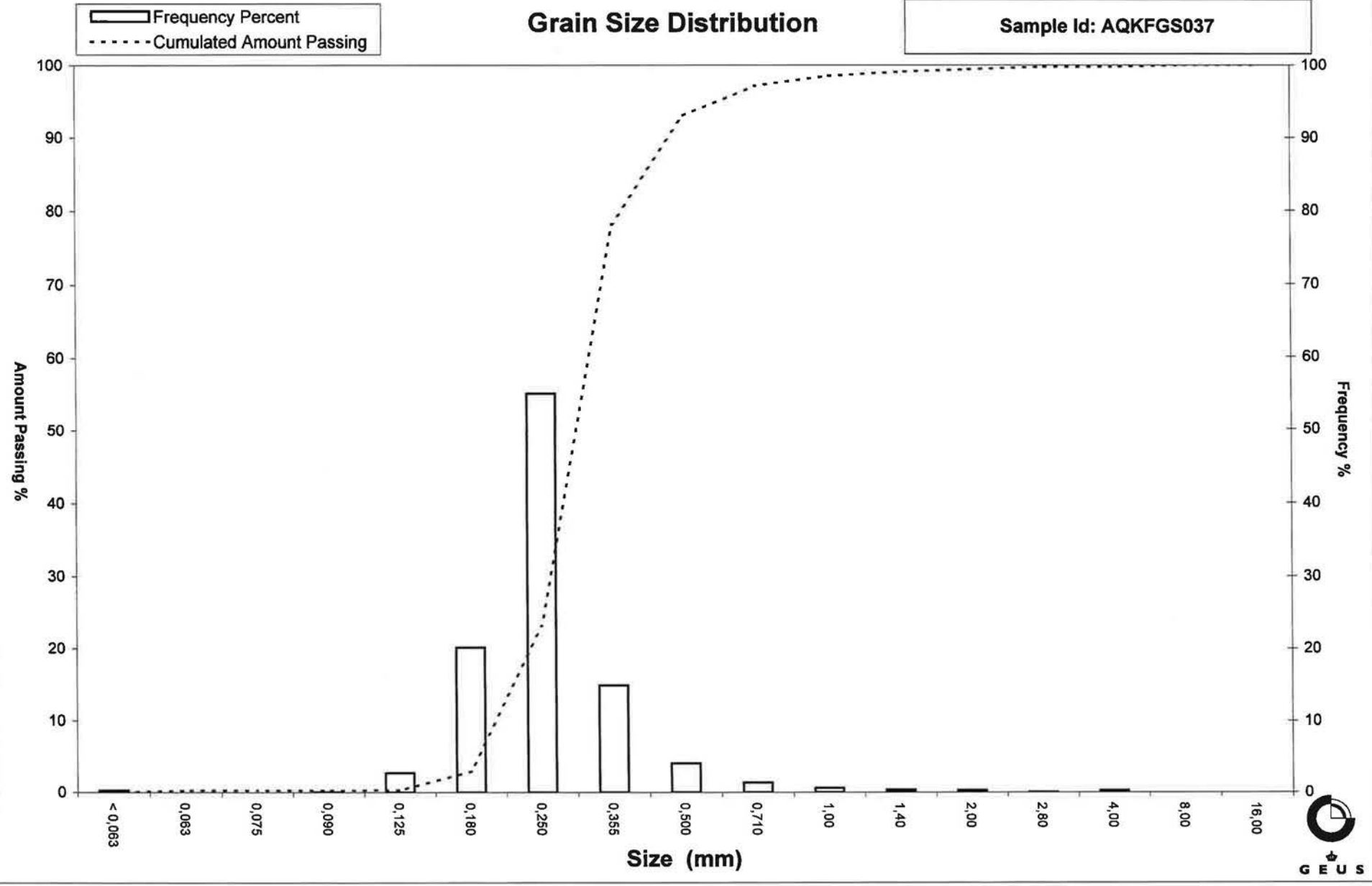
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS037





# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS039  
**Lab. Id:** KF 39  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A. Stoican  
**Remarks:** For mat. < 8 mm.



**Total Weight** 212,33 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	4,31	2,03	97,97
4,00	-2,00	15,92	7,50	90,47
2,80	-1,49	21,55	10,15	80,32
2,00	-1,00	24,64	11,60	68,72
1,40	-0,49	30,59	14,41	54,31
1,00	0,00	33,29	15,68	38,63
0,710	0,49	17,38	8,19	30,45
0,500	1,00	16,01	7,54	22,91
0,355	1,49	18,93	8,92	13,99
0,250	2,00	24,83	11,69	2,30
0,180	2,47	4,15	1,95	0,34
0,125	3,00	0,45	0,21	0,13
0,090	3,47	0,03	0,01	0,12
0,075	3,74	0,01	0,00	0,11
0,063	3,99	0,00	0,00	0,11
< 0,063	> 3,99	0,24	0,11	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	0,11
Sand, fine (0,063 mm - 0,200 mm):	0,79
Sand, medium (0,2 mm - 0,6 mm):	25,60
Sand, coarse (0,6 mm - 2 mm):	42,22
Gravel (> 2 mm):	31,28
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	6,42	-2,68
16%	84%	3,23	-1,69
25%	75%	2,43	-1,28
40%	60%	1,64	-0,71
Median 50%	50%	1,29	-0,37
75%	25%	0,56	0,84
84%	16%	0,39	1,37
90%	10%	0,32	1,65
95%	5%	0,27	1,87

## Moments Statistics

Mean	-0,23
Sorting	1,45
Skewness	0,06
Kurtosis	0,88
Uniformity Coefficient	5,13

The analysis is executed according to DS405.9  
 DS/EN933-1 extended by sieves to the ½ phi scale.

Size Classes and Percentiles  
 are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

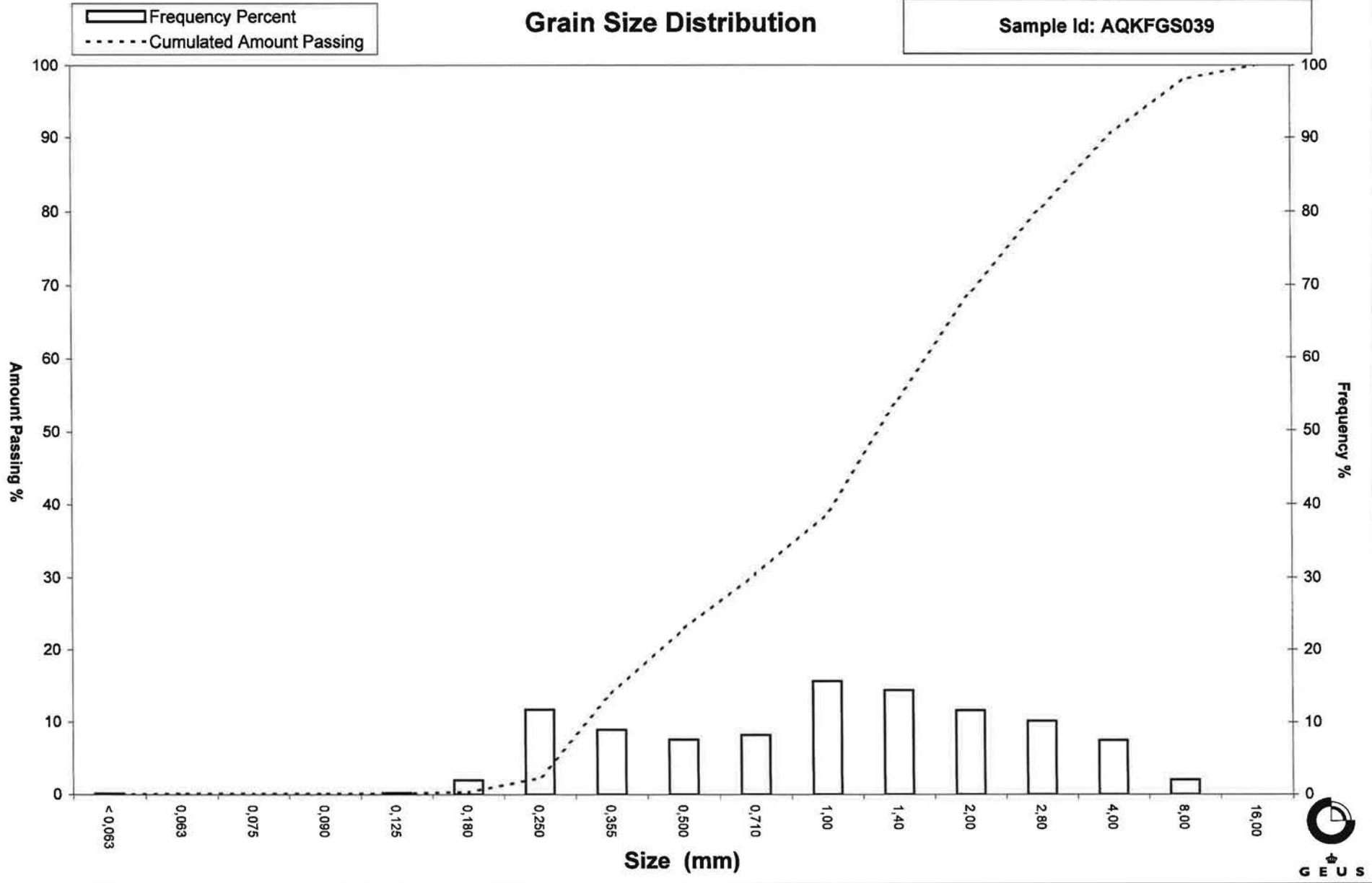
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on  
 "Amount in sieve". Uniformity coefficient is based on  
 "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS039



# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS040  
**Lab. Id:** KF 40  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 106,19 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,06	0,06	99,94
2,80	-1,49	0,02	0,02	99,92
2,00	-1,00	0,00	0,00	99,92
1,40	-0,49	0,02	0,02	99,91
1,00	0,00	0,09	0,08	99,82
0,710	0,49	0,92	0,87	98,95
0,500	1,00	3,65	3,44	95,52
0,355	1,49	18,76	17,67	77,85
0,250	2,00	53,21	50,11	27,74
0,180	2,47	24,71	23,27	4,47
0,125	3,00	4,49	4,23	0,24
0,090	3,47	0,11	0,10	0,14
0,075	3,74	0,01	0,01	0,13
0,063	3,99	0,00	0,00	0,13
< 0,063	> 3,99	0,14	0,13	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	0,13
Sand, fine (0,063 mm - 0,200 mm):	10,99
Sand, medium (0,2 mm - 0,6 mm):	86,03
Sand, coarse (0,6 mm - 2 mm):	2,77
Gravel (> 2 mm):	0,08
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,50	1,01
16%	84%	0,41	1,30
25%	75%	0,35	1,52
40%	60%	0,32	1,65
Median 50%	50%	0,30	1,75
75%	25%	0,24	2,05
84%	16%	0,21	2,22
90%	10%	0,20	2,35
95%	5%	0,18	2,46

## Moments Statistics

Mean	1,76
Sorting	0,45
Skewness	0,00
Kurtosis	1,12
Uniformity Coefficient	1,62

The analysis is executed according to DS405.9 DS/EN933-1 extended by sieves to the 1/2 phi scale.

Size Classes and Percentiles are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

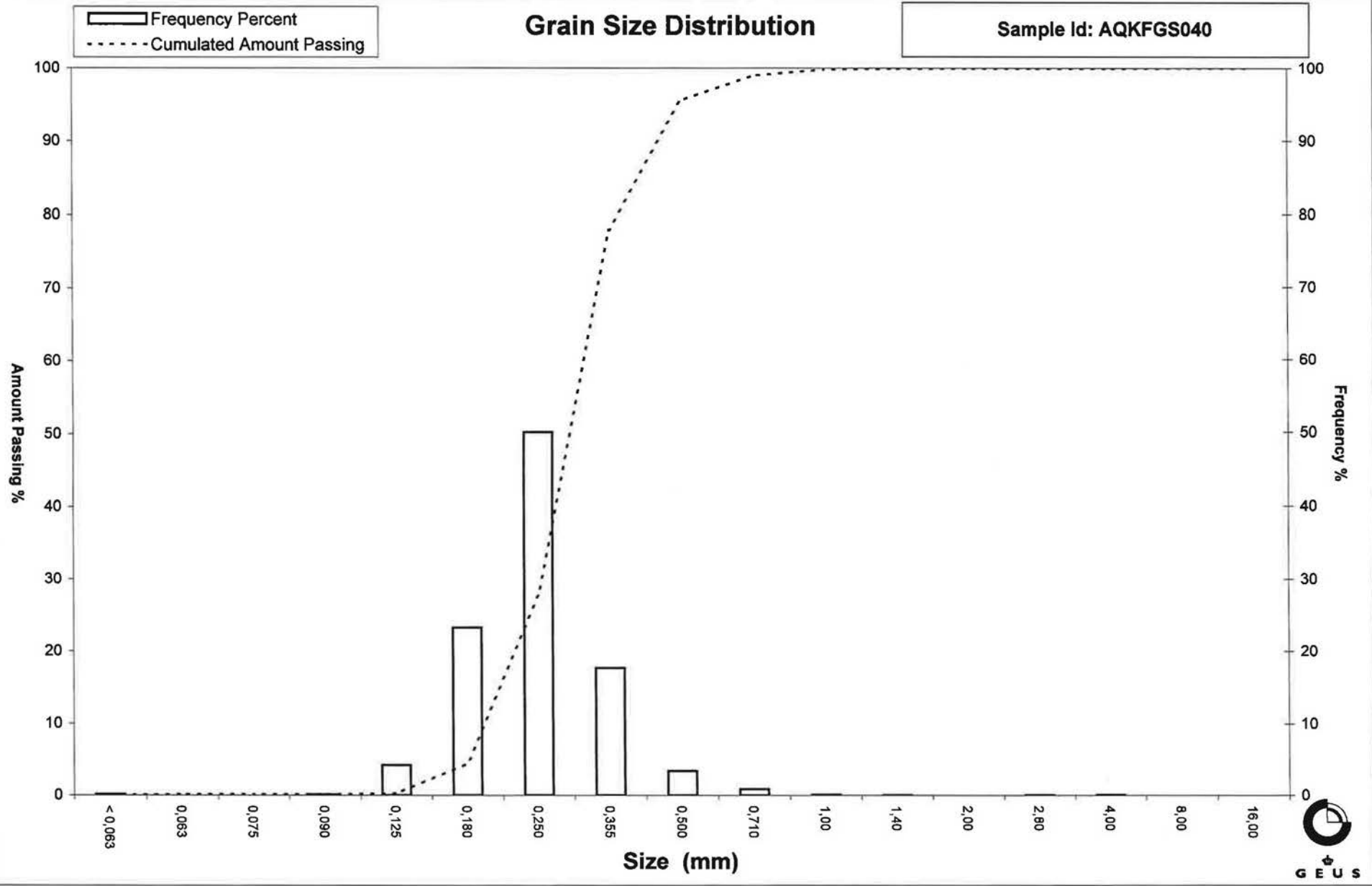
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgg-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS040



# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS041  
**Lab. Id:** KF 41  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 114,55 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,35	0,31	99,69
2,80	-1,49	0,01	0,01	99,69
2,00	-1,00	0,02	0,02	99,67
1,40	-0,49	0,04	0,03	99,63
1,00	0,00	0,14	0,12	99,51
0,710	0,49	0,69	0,60	98,91
0,500	1,00	2,87	2,51	96,40
0,355	1,49	12,61	11,01	85,40
0,250	2,00	48,56	42,39	43,00
0,180	2,47	30,46	26,59	16,41
0,125	3,00	3,72	3,25	13,16
0,090	3,47	0,14	0,12	13,04
0,075	3,74	0,06	0,05	12,99
0,063	3,99	0,05	0,04	12,95
< 0,063	> 3,99	14,83	12,95	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

Size Class	Weight %
Silt and clay (< 0,063 mm)	12,95
Sand, fine (0,063 mm - 0,200 mm)	11,06
Sand, medium (0,2 mm - 0,6 mm)	73,59
Sand, coarse (0,6 mm - 2 mm)	2,07
Gravel (> 2 mm)	0,33
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,48	1,05
16%	84%	0,35	1,51
25%	75%	0,33	1,60
40%	60%	0,29	1,78
Median 50%	50%	0,27	1,90
75%	25%	0,20	2,30
84%	16%	0,17	2,53
90%	10%	-----	-----
95%	5%	-----	-----

## Moments Statistics

Mean	1,98
Sorting	-----
Skewness	-----
Kurtosis	-----
Uniformity Coefficient	-----

The analysis is executed according to DS405.9 DS/EN933-1 extended by sieves to the ½ phi scale.

Size Classes and Percentiles are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

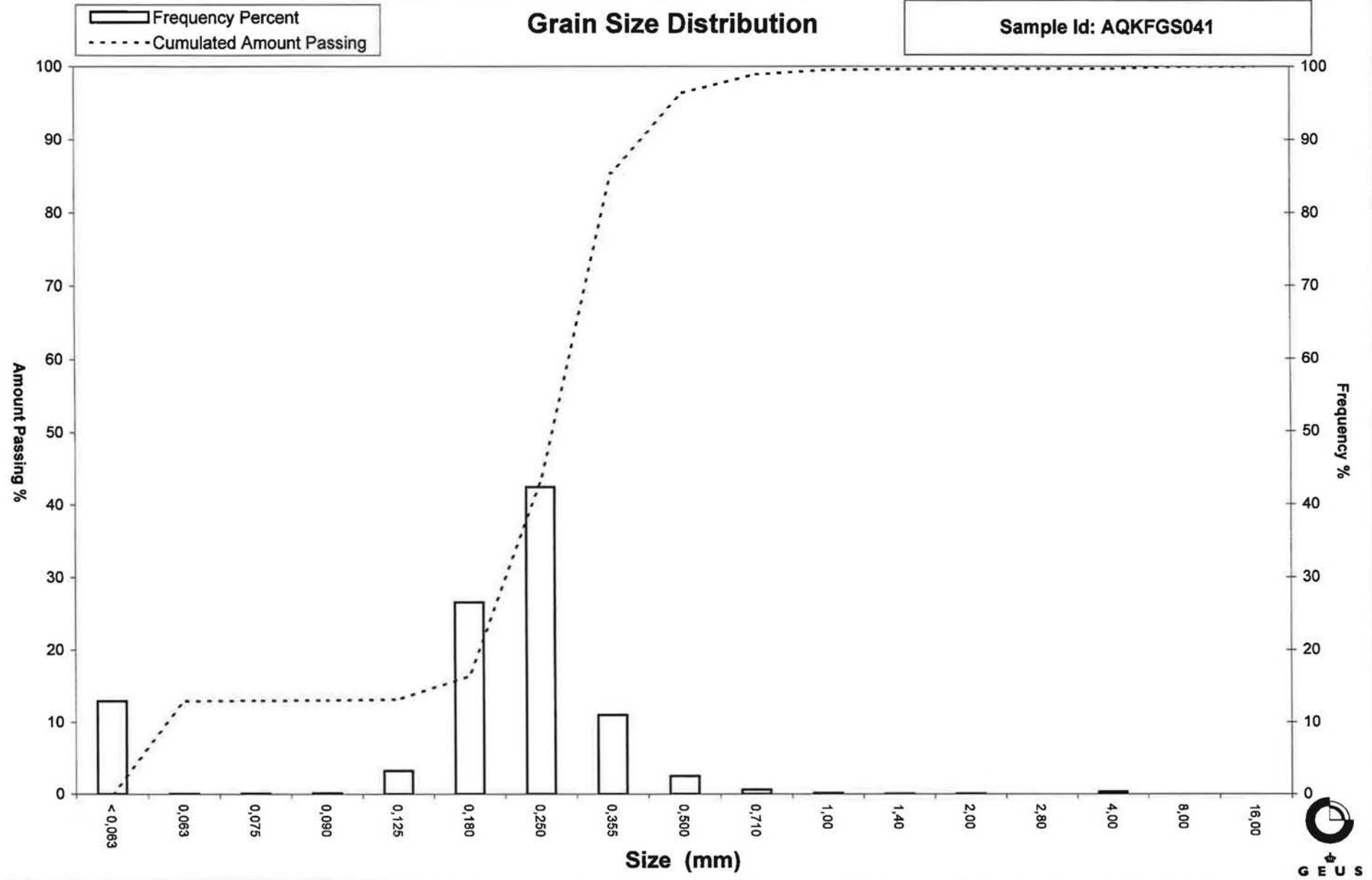
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS041



# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS042  
**Lab. Id:** KF 42  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A. Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 108,41 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,00	0,00	100,00
2,00	-1,00	0,00	0,00	100,00
1,40	-0,49	0,21	0,19	99,81
1,00	0,00	0,90	0,83	98,98
0,710	0,49	3,17	2,92	96,05
0,500	1,00	12,29	11,34	84,72
0,355	1,49	22,84	21,07	63,65
0,250	2,00	44,89	41,41	22,24
0,180	2,47	19,25	17,76	4,48
0,125	3,00	4,41	4,07	0,42
0,090	3,47	0,12	0,11	0,30
0,075	3,74	0,01	0,01	0,30
0,063	3,99	0,00	0,00	0,30
< 0,063	> 3,99	0,32	0,30	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	0,30
Sand, fine (0,063 mm - 0,200 mm):	9,26
Sand, medium (0,2 mm - 0,6 mm):	80,56
Sand, coarse (0,6 mm - 2 mm):	9,89
Gravel (> 2 mm):	0,00
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,69	0,53
16%	84%	0,50	1,01
25%	75%	0,43	1,21
40%	60%	0,35	1,53
Median 50%	50%	0,32	1,64
75%	25%	0,26	1,96
84%	16%	0,23	2,15
90%	10%	0,20	2,31
95%	5%	0,18	2,46

## Moments Statistics

Mean	1,60
Sorting	0,58
Skewness	-0,13
Kurtosis	1,05
Uniformity Coefficient	1,71

The analysis is executed according to DS405.9  
DS/EN933-1 extended by sieves to the ½ phi scale.

Size Classes and Percentiles  
are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

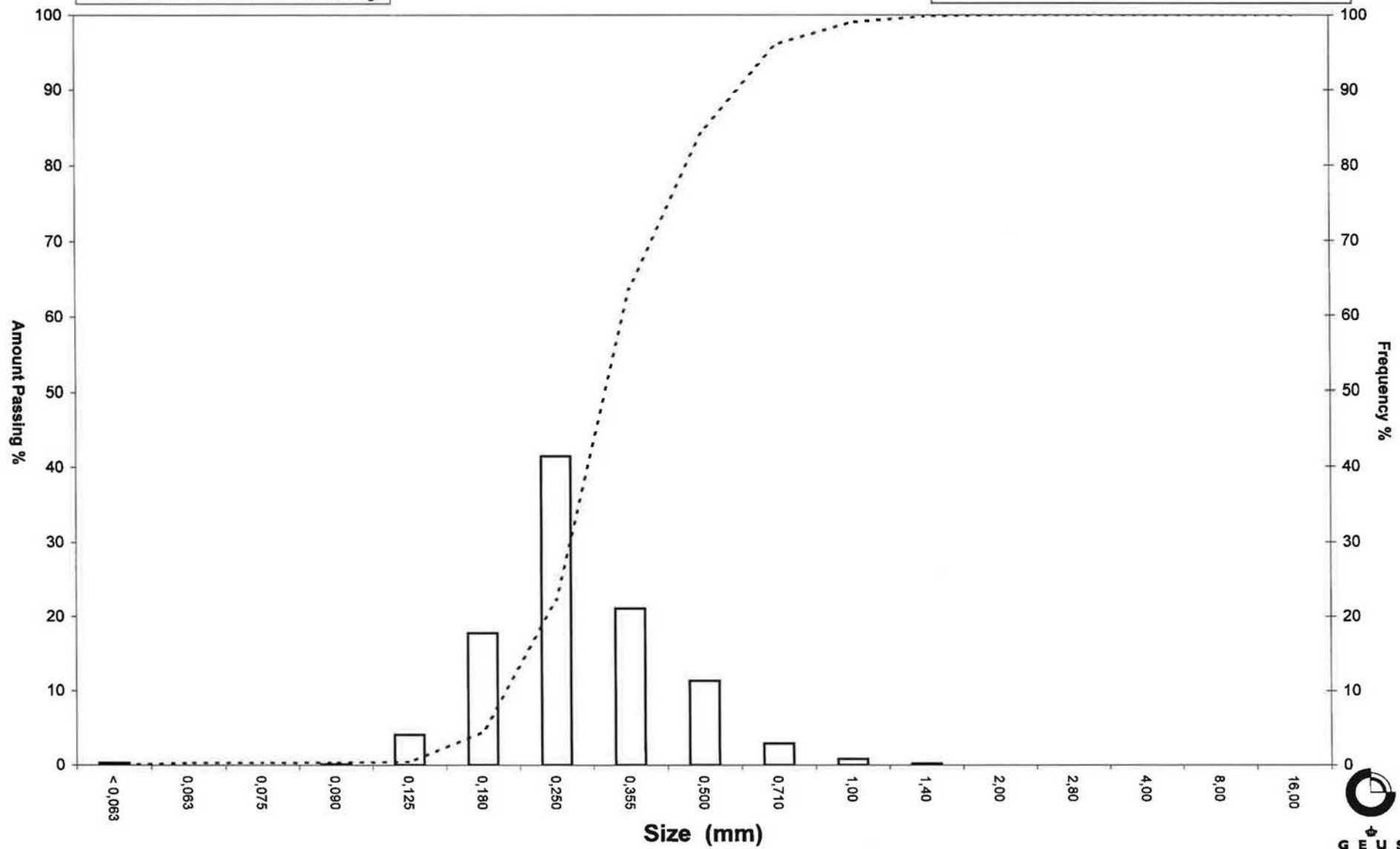
Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS042

Frequency Percent  
Cumulated Amount Passing





# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS044  
**Lab. Id:** KF 44  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 106,55 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,00	0,00	100,00
2,00	-1,00	0,00	0,00	100,00
1,40	-0,49	0,00	0,00	100,00
1,00	0,00	0,07	0,07	99,93
0,710	0,49	0,13	0,12	99,81
0,500	1,00	0,46	0,43	99,38
0,355	1,49	3,33	3,13	96,26
0,250	2,00	19,35	18,16	78,09
0,180	2,47	49,97	46,90	31,20
0,125	3,00	31,19	29,27	1,92
0,090	3,47	1,71	1,60	0,32
0,075	3,74	0,07	0,07	0,25
0,063	3,99	0,02	0,02	0,23
< 0,063	> 3,99	0,25	0,23	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

Size Class	Weight %
Silt and clay (< 0,063 mm):	0,23
Sand, fine (0,063 mm - 0,200 mm):	44,36
Sand, medium (0,2 mm - 0,6 mm):	54,99
Sand, coarse (0,6 mm - 2 mm):	0,41
Gravel (> 2 mm):	0,00
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,35	1,52
16%	84%	0,28	1,82
25%	75%	0,25	2,03
40%	60%	0,22	2,16
Median 50%	50%	0,21	2,26
75%	25%	0,17	2,57
84%	16%	0,15	2,72
90%	10%	0,14	2,83
95%	5%	0,13	2,93

## Moments Statistics

Mean	2,27
Sorting	0,44
Skewness	-0,02
Kurtosis	1,06
Uniformity Coefficient	1,59

The analysis is executed according to DS405.9 DS/EN933-1 extended by sieves to the ½ phi scale.

Size Classes and Percentiles are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

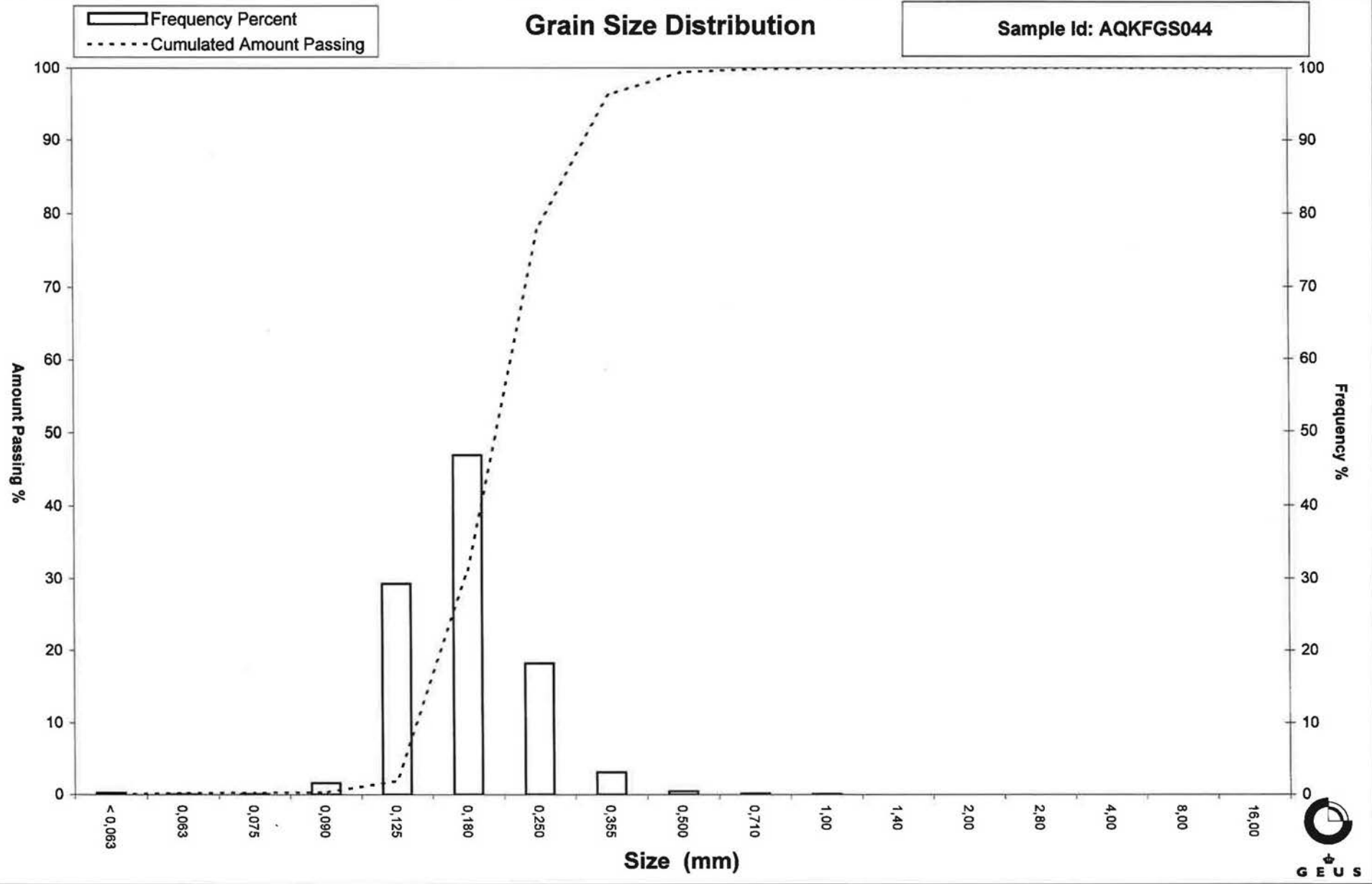
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS044



# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS045  
**Lab. Id:** KF 45  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 106,93 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,17	0,16	99,84
2,80	-1,49	0,01	0,01	99,83
2,00	-1,00	0,09	0,08	99,75
1,40	-0,49	0,17	0,16	99,59
1,00	0,00	0,13	0,12	99,47
0,710	0,49	0,24	0,22	99,24
0,500	1,00	0,50	0,47	98,77
0,355	1,49	4,29	4,01	94,76
0,250	2,00	28,92	27,05	67,72
0,180	2,47	45,70	42,74	24,98
0,125	3,00	24,85	23,24	1,74
0,090	3,47	1,74	1,63	0,11
0,075	3,74	0,06	0,06	0,06
0,063	3,99	0,01	0,01	0,05
< 0,063	> 3,99	0,05	0,05	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	0,05
Sand, fine (0,063 mm - 0,200 mm):	37,14
Sand, medium (0,2 mm - 0,6 mm):	61,81
Sand, coarse (0,6 mm - 2 mm):	0,75
Gravel (> 2 mm):	0,25
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,36	1,46
16%	84%	0,31	1,67
25%	75%	0,28	1,85
40%	60%	0,24	2,07
Median 50%	50%	0,22	2,18
75%	25%	0,18	2,47
84%	16%	0,16	2,66
90%	10%	0,14	2,79
95%	5%	0,13	2,91

## Moments Statistics

Mean	2,17
Sorting	0,47
Skewness	-0,01
Kurtosis	0,95
Uniformity Coefficient	1,64

The analysis is executed according to DS405.9 DS/EN933-1 extended by sieves to the 1/2 phi scale.

Size Classes and Percentiles are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

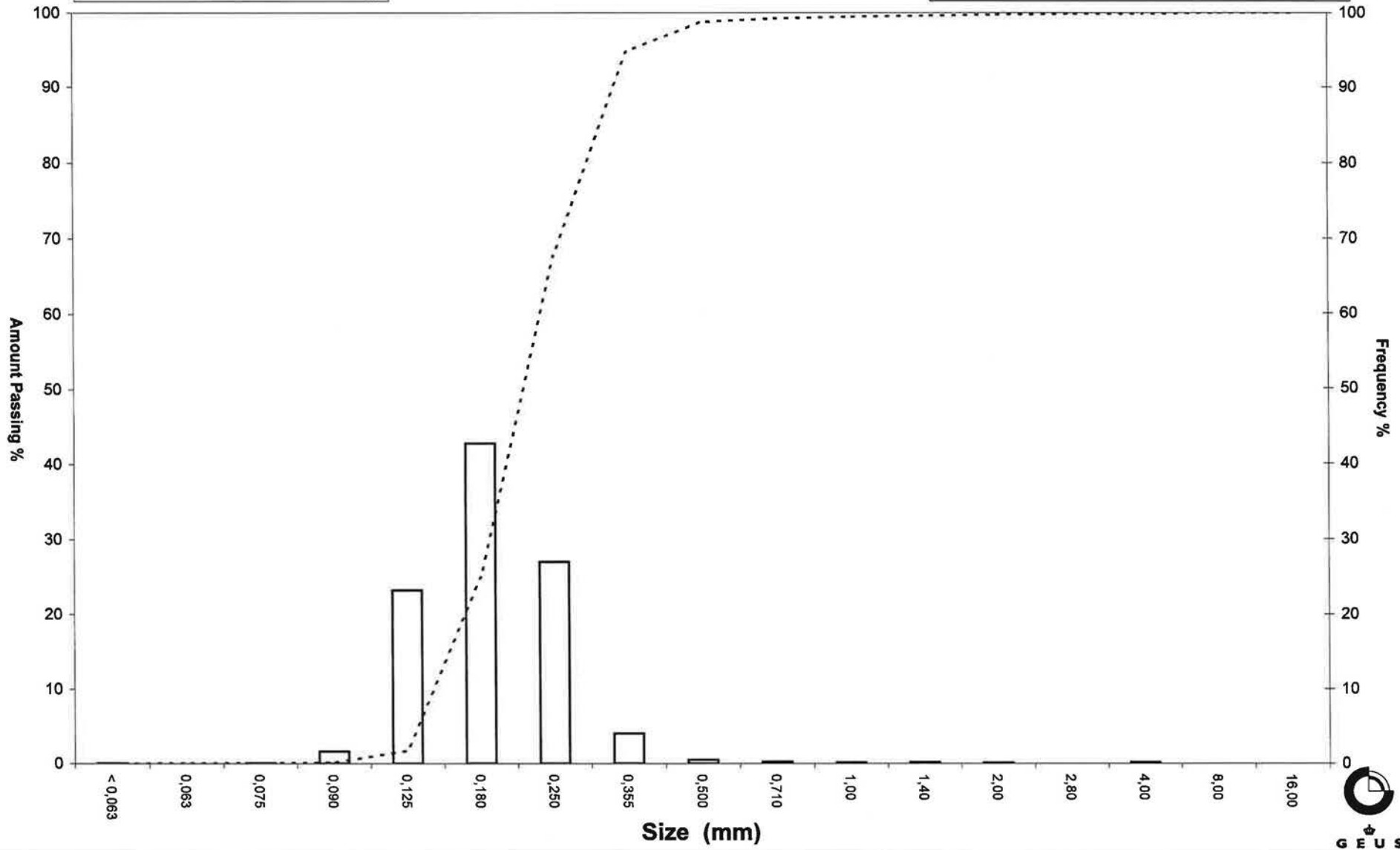
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS045



# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS046  
**Lab. Id:** KF 46  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 8 mm.



**Total Weight** 202,31 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	28,19	13,93	86,07
8,00	-3,00	2,49	1,23	84,84
4,00	-2,00	2,67	1,32	83,52
2,80	-1,49	2,43	1,20	82,31
2,00	-1,00	3,31	1,64	80,68
1,40	-0,49	3,46	1,71	78,97
1,00	0,00	8,22	4,06	74,90
0,710	0,49	20,07	9,92	64,98
0,500	1,00	40,40	19,97	45,02
0,355	1,49	31,19	15,42	29,60
0,250	2,00	27,66	13,67	15,93
0,180	2,47	21,90	10,82	5,10
0,125	3,00	9,31	4,60	0,50
0,090	3,47	0,35	0,17	0,33
0,075	3,74	0,05	0,02	0,30
0,063	3,99	0,00	0,00	0,30
< 0,063	> 3,99	0,61	0,30	0,00

Sieve Analysis

Gravel  
Sand

## Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	0,30
Sand, fine (0,063 mm - 0,200 mm):	7,89
Sand, medium (0,2 mm - 0,6 mm):	46,33
Sand, coarse (0,6 mm - 2 mm):	26,15
Gravel (> 2 mm):	19,32
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	-----	-----
16%	84%	5,47	-2,45
25%	75%	1,01	-0,01
40%	60%	0,66	0,60
Median 50%	50%	0,55	0,86
75%	25%	0,32	1,65
84%	16%	0,25	2,00
90%	10%	0,21	2,24
95%	5%	0,18	2,48

## Moments Statistics

Mean	0,13
Sorting	-----
Skewness	-----
Kurtosis	-----
Uniformity Coefficient	3,11

The analysis is executed according to DS405.9 DS/EN933-1 extended by sieves to the 1/2 phi scale.

Size Classes and Percentiles are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

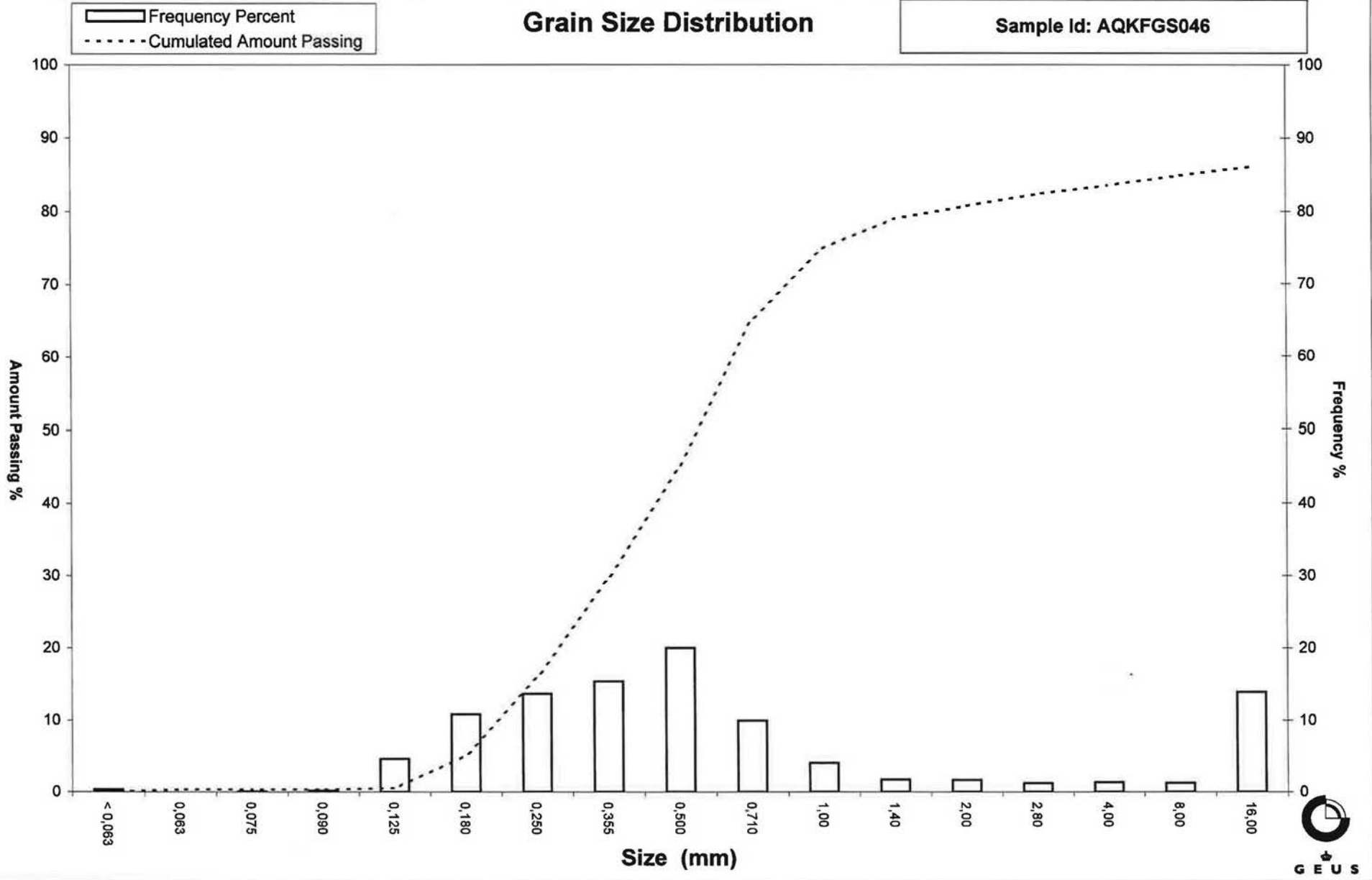
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS046



# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS047  
**Lab. Id:** KF 47  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 102,85 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,03	0,03	99,97
2,80	-1,49	0,00	0,00	99,97
2,00	-1,00	0,00	0,00	99,97
1,40	-0,49	0,00	0,00	99,97
1,00	0,00	0,01	0,01	99,96
0,710	0,49	0,08	0,08	99,88
0,500	1,00	0,26	0,25	99,63
0,355	1,49	3,73	3,63	96,00
0,250	2,00	17,77	17,28	78,73
0,180	2,47	27,95	27,18	51,55
0,125	3,00	47,60	46,28	5,27
0,090	3,47	4,85	4,72	0,55
0,075	3,74	0,12	0,12	0,44
0,063	3,99	0,05	0,05	0,39
< 0,063	> 3,99	0,40	0,39	0,00

Sieve Analysis

Gravel  
Sand

## Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	0,39
Sand, fine (0,063 mm - 0,200 mm):	58,93
Sand, medium (0,2 mm - 0,6 mm):	40,44
Sand, coarse (0,6 mm - 2 mm):	0,22
Gravel (> 2 mm):	0,03
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,35	1,52
16%	84%	0,28	1,83
25%	75%	0,24	2,06
40%	60%	0,20	2,31
Median 50%	50%	0,18	2,49
75%	25%	0,15	2,75
84%	16%	0,14	2,86
90%	10%	0,13	2,94
95%	5%	0,12	3,02

## Moments Statistics

Mean	2,39
Sorting	0,49
Skewness	-0,29
Kurtosis	0,89
Uniformity Coefficient	1,54

The analysis is executed according to DS405.9 DS/EN933-1 extended by sieves to the ½ phi scale.

Size Classes and Percentiles are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

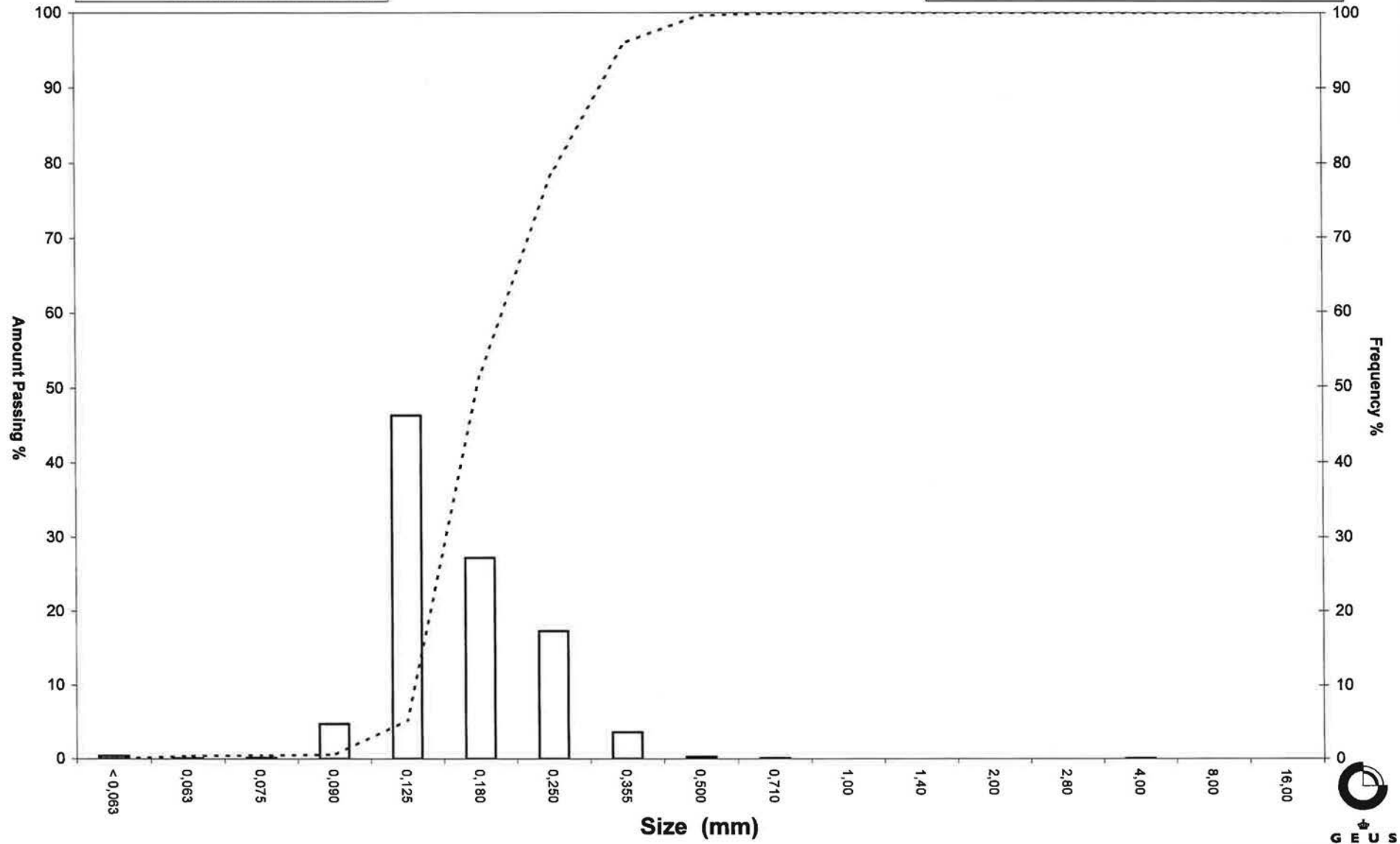
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS047





# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS048  
**Lab. Id:** KF 48  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 105,95 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,00	0,00	100,00
2,00	-1,00	0,00	0,00	100,00
1,40	-0,49	0,03	0,03	99,97
1,00	0,00	0,24	0,23	99,75
0,710	0,49	0,65	0,61	99,13
0,500	1,00	3,44	3,25	95,88
0,355	1,49	14,14	13,35	82,54
0,250	2,00	36,30	34,26	48,28
0,180	2,47	34,24	32,32	15,96
0,125	3,00	16,05	15,15	0,81
0,090	3,47	0,61	0,58	0,24
0,075	3,74	0,01	0,01	0,23
0,063	3,99	0,00	0,00	0,23
< 0,063	> 3,99	0,24	0,23	0,00

## Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	0,23
Sand, fine (0,063 mm - 0,200 mm):	24,97
Sand, medium (0,2 mm - 0,6 mm):	72,24
Sand, coarse (0,6 mm - 2 mm):	2,57
Gravel (> 2 mm):	0,00
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	φ
Amount in sieve	Amount passing		
5%	95%	0,49	1,03
16%	84%	0,37	1,43
25%	75%	0,33	1,59
40%	60%	0,29	1,81
Median 50%	50%	0,26	1,97
75%	25%	0,20	2,32
84%	16%	0,18	2,47
90%	10%	0,16	2,66
95%	5%	0,14	2,83

## Moments Statistics

Mean	1,96
Sorting	0,53
Skewness	-0,04
Kurtosis	1,01
Uniformity Coefficient	1,81

The analysis is executed according to DS405.9 DS/EN933-1 extended by sieves to the 1/2 phi scale.

Size Classes and Percentiles are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

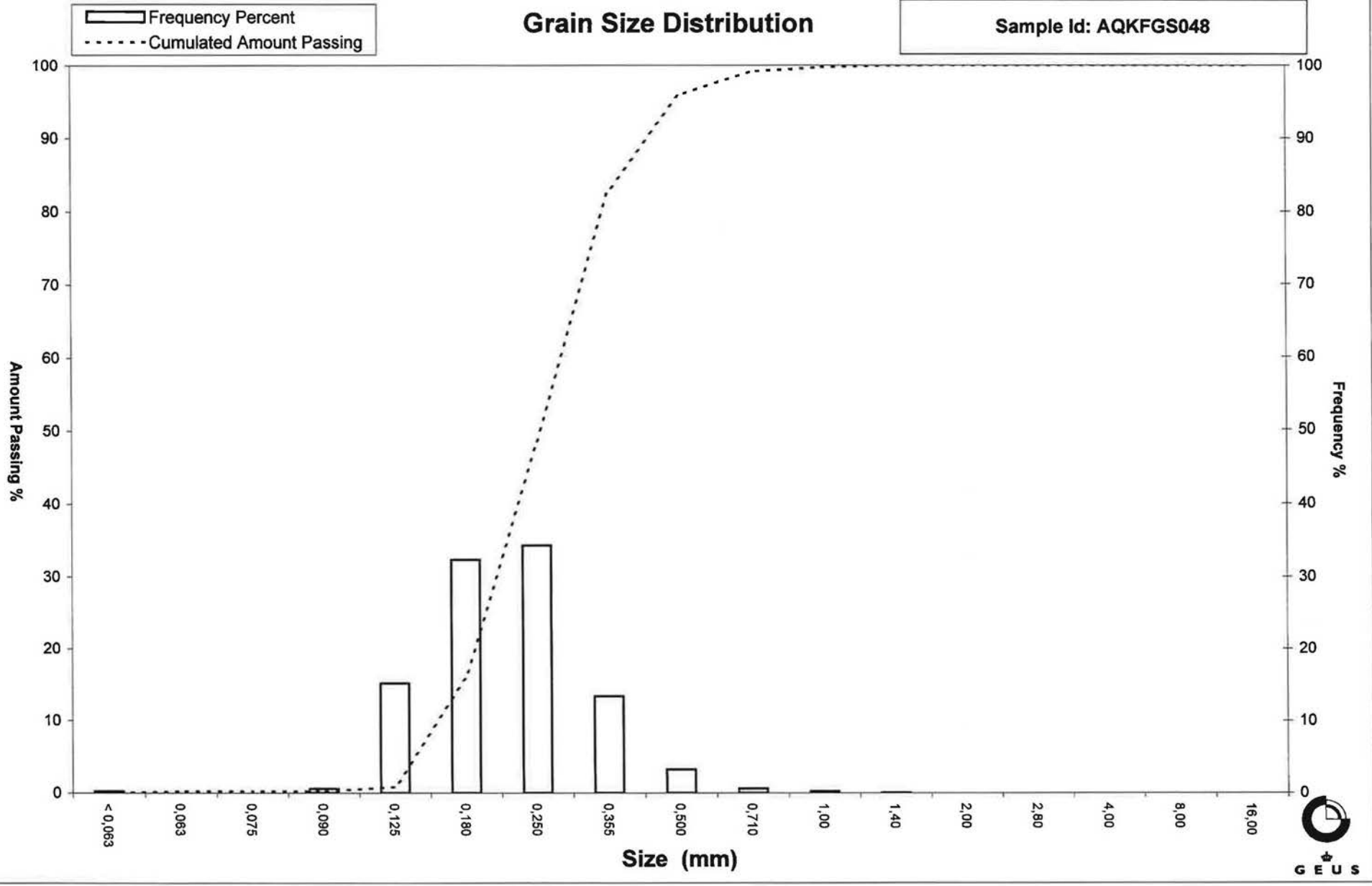
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS048



# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS049  
**Lab. Id:** KF 49  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 8 mm.



**Total Weight** 205,06 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,22	0,11	99,89
4,00	-2,00	2,48	1,21	98,68
2,80	-1,49	4,08	1,99	96,69
2,00	-1,00	13,93	6,79	89,90
1,40	-0,49	38,44	18,75	71,15
1,00	0,00	42,69	20,82	50,34
0,710	0,49	27,44	13,38	36,96
0,500	1,00	24,03	11,72	25,24
0,355	1,49	20,91	10,20	15,04
0,250	2,00	17,88	8,72	6,32
0,180	2,47	7,05	3,44	2,88
0,125	3,00	3,71	1,81	1,07
0,090	3,47	0,71	0,35	0,73
0,075	3,74	0,08	0,04	0,69
0,063	3,99	0,07	0,03	0,65
< 0,063	> 3,99	1,34	0,65	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	0,65
Sand, fine (0,063 mm - 0,200 mm):	3,21
Sand, medium (0,2 mm - 0,6 mm):	26,95
Sand, coarse (0,6 mm - 2 mm):	59,08
Gravel (> 2 mm):	10,10
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	2,60	-1,38
16%	84%	1,81	-0,86
25%	75%	1,52	-0,61
40%	60%	1,19	-0,25
Median 50%	50%	0,99	0,01
75%	25%	0,50	1,01
84%	16%	0,37	1,44
90%	10%	0,29	1,76
95%	5%	0,22	2,16

## Moments Statistics

Mean	0,20
Sorting	1,11
Skewness	0,23
Kurtosis	0,90
Uniformity Coefficient	4,03

The analysis is executed according to DS405.9  
 DS/EN933-1 extended by sieves to the 1/2 phi scale.

Size Classes and Percentiles  
 are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

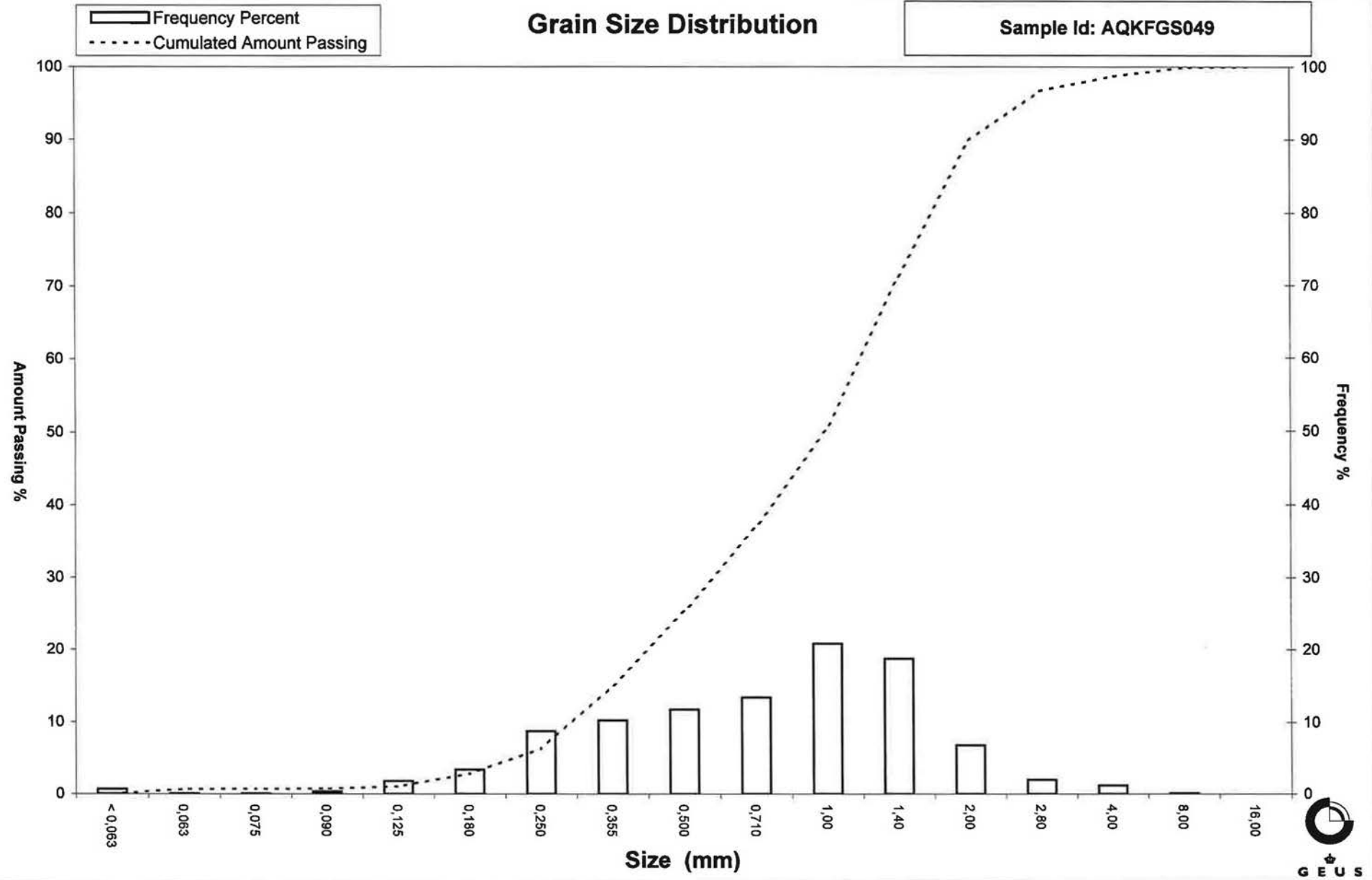
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on  
 "Amount in sieve". Uniformity coefficient is based on  
 "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS049



# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS051  
**Lab. Id:** KF 51  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 103,55 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount
mm	φ	g	%	amount passing %
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,00	0,00	100,00
2,00	-1,00	0,01	0,01	99,99
1,40	-0,49	0,03	0,03	99,96
1,00	0,00	0,36	0,35	99,61
0,710	0,49	1,69	1,63	97,98
0,500	1,00	10,22	9,87	88,11
0,355	1,49	24,96	24,10	64,01
0,250	2,00	33,12	31,98	32,02
0,180	2,47	23,39	22,59	9,44
0,125	3,00	8,55	8,26	1,18
0,090	3,47	0,83	0,80	0,38
0,075	3,74	0,05	0,05	0,33
0,063	3,99	0,04	0,04	0,29
< 0,063	> 3,99	0,30	0,29	0,00

Sieve Analysis

Gravel  
Sand

## Size Classes (DGF-Bulletin 1 1988)

Size Class	Weight %
Silt and clay (< 0,063 mm)	0,29
Sand, fine (0,063 mm - 0,200 mm)	15,60
Sand, medium (0,2 mm - 0,6 mm)	76,92
Sand, coarse (0,6 mm - 2 mm)	7,18
Gravel (> 2 mm)	0,01
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	φ
Amount in sieve	Amount passing		
5%	95%	0,65	0,63
16%	84%	0,48	1,07
25%	75%	0,42	1,25
40%	60%	0,34	1,55
<b>Median 50%</b>	<b>50%</b>	<b>0,31</b>	<b>1,69</b>
75%	25%	0,23	2,13
84%	16%	0,20	2,32
90%	10%	0,18	2,46
95%	5%	0,15	2,73

## Moments Statistics

Mean	1,70
Sorting	0,63
Skewness	0,00
Kurtosis	0,98
Uniformity Coefficient	1,88

The analysis is executed according to DS405.9 DS/EN933-1 extended by sieves to the 1/2 phi scale.

Size Classes and Percentiles are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

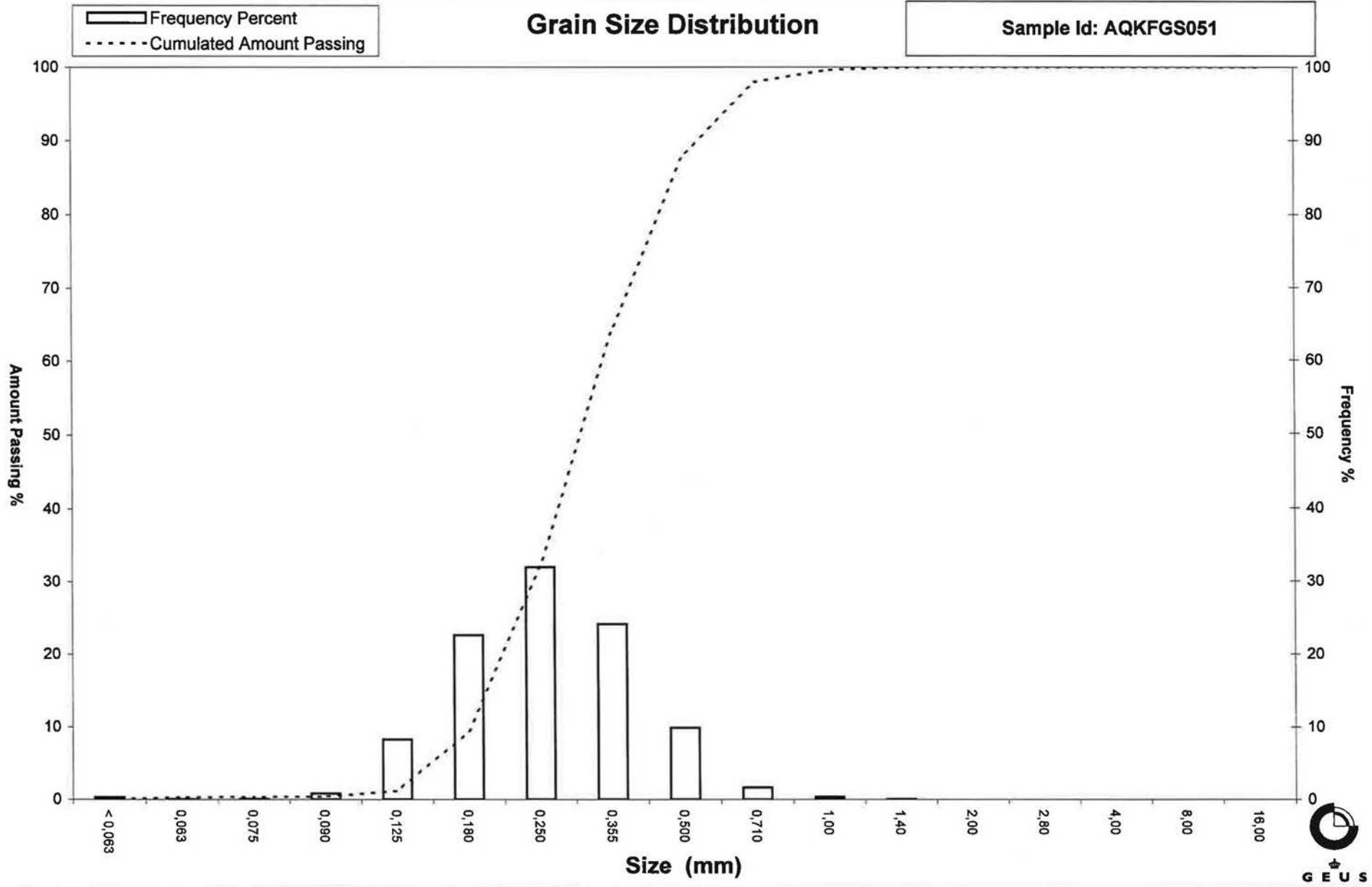
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dGF-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS051



# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS053  
**Lab. Id:** KF 53  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 105,29 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount
mm	Φ	g	%	passing %
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,00	0,00	100,00
2,00	-1,00	0,01	0,01	99,99
1,40	-0,49	0,07	0,07	99,92
1,00	0,00	0,34	0,32	99,60
0,710	0,49	1,35	1,28	98,32
0,500	1,00	4,36	4,14	94,18
0,355	1,49	12,09	11,48	82,70
0,250	2,00	36,23	34,41	48,29
0,180	2,47	35,98	34,17	14,11
0,125	3,00	14,00	13,30	0,82
0,090	3,47	0,58	0,55	0,27
0,075	3,74	0,01	0,01	0,26
0,063	3,99	0,01	0,01	0,25
< 0,063	> 3,99	0,26	0,25	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	0,25
Sand, fine (0,063 mm - 0,200 mm):	23,63
Sand, medium (0,2 mm - 0,6 mm):	72,27
Sand, coarse (0,6 mm - 2 mm):	3,84
Gravel (> 2 mm):	0,01
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,54	0,88
16%	84%	0,37	1,43
25%	75%	0,33	1,59
40%	60%	0,29	1,81
Median 50%	50%	0,26	1,97
75%	25%	0,20	2,31
84%	16%	0,18	2,44
90%	10%	0,16	2,62
95%	5%	0,14	2,81

## Moments Statistics

Mean	1,95
Sorting	0,55
Skewness	-0,10
Kurtosis	1,11
Uniformity Coefficient	1,75

The analysis is executed according to DS405.9  
 DS/EN933-1 extended by sieves to the 1/2 phi scale.

Size Classes and Percentiles  
 are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

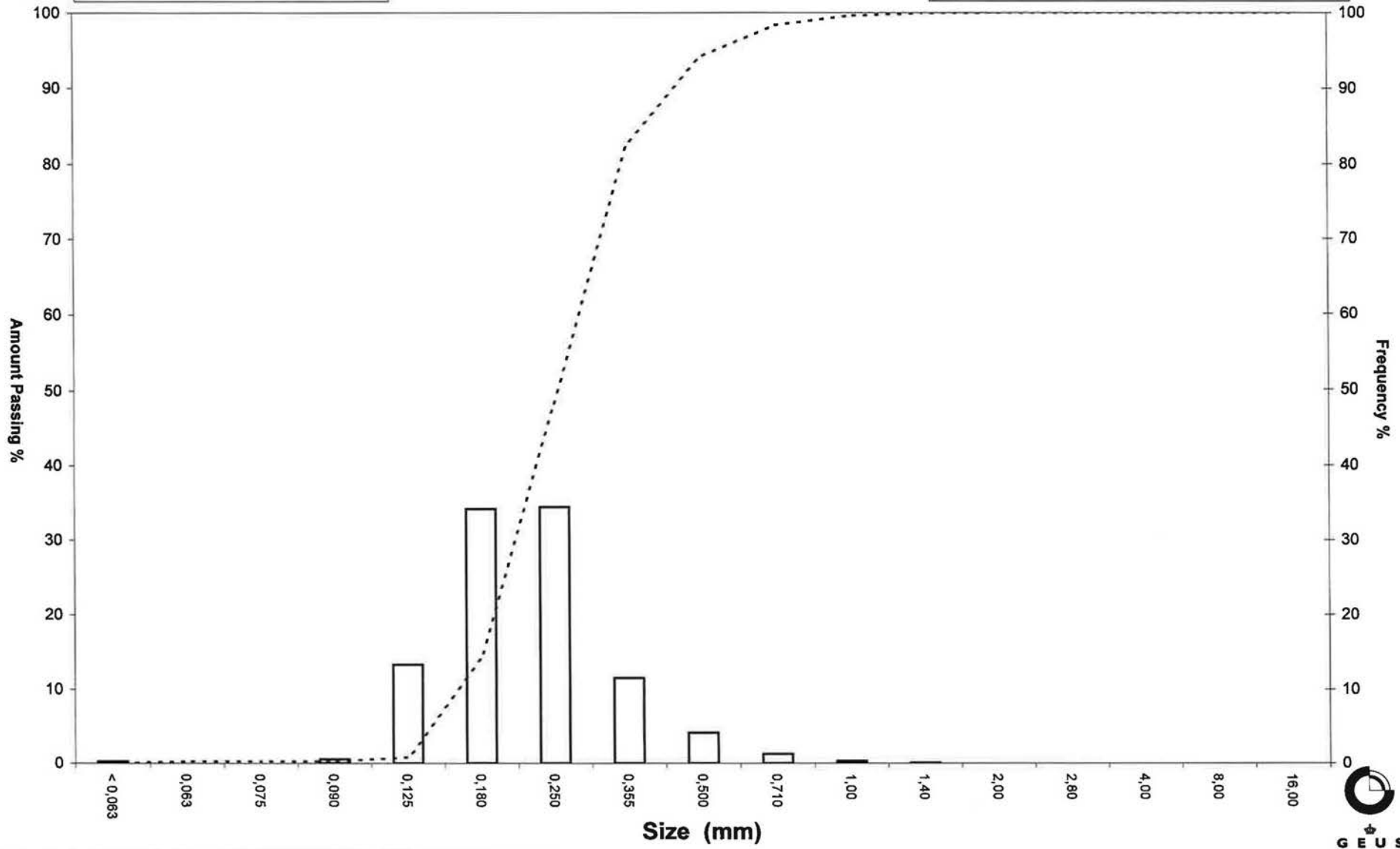
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS053





# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS054  
**Lab. Id:** KF 54  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 110,73 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,26	0,23	99,77
4,00	-2,00	0,99	0,89	98,87
2,80	-1,49	0,15	0,14	98,74
2,00	-1,00	0,12	0,11	98,63
1,40	-0,49	0,02	0,02	98,61
1,00	0,00	0,03	0,03	98,58
0,710	0,49	0,08	0,07	98,51
0,500	1,00	0,16	0,14	98,37
0,355	1,49	1,59	1,44	96,93
0,250	2,00	8,33	7,52	89,41
0,180	2,47	36,57	33,03	56,38
0,125	3,00	58,26	52,61	3,77
0,090	3,47	3,40	3,07	0,70
0,075	3,74	0,14	0,13	0,57
0,063	3,99	0,05	0,05	0,52
< 0,063	> 3,99	0,58	0,52	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	0,52
Sand, fine (0,063 mm - 0,200 mm):	65,29
Sand, medium (0,2 mm - 0,6 mm):	32,62
Sand, coarse (0,6 mm - 2 mm):	0,19
Gravel (> 2 mm):	1,37
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,33	1,61
16%	84%	0,24	2,07
25%	75%	0,22	2,19
40%	60%	0,19	2,41
Median 50%	50%	0,17	2,53
75%	25%	0,15	2,76
84%	16%	0,14	2,86
90%	10%	0,13	2,93
95%	5%	0,13	2,99

## Moments Statistics

Mean	2,49
Sorting	0,41
Skewness	-0,25
Kurtosis	0,98
Uniformity Coefficient	1,43

The analysis is executed according to DS405.9 DS/EN933-1 extended by sieves to the ½ phi scale.

Size Classes and Percentiles are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

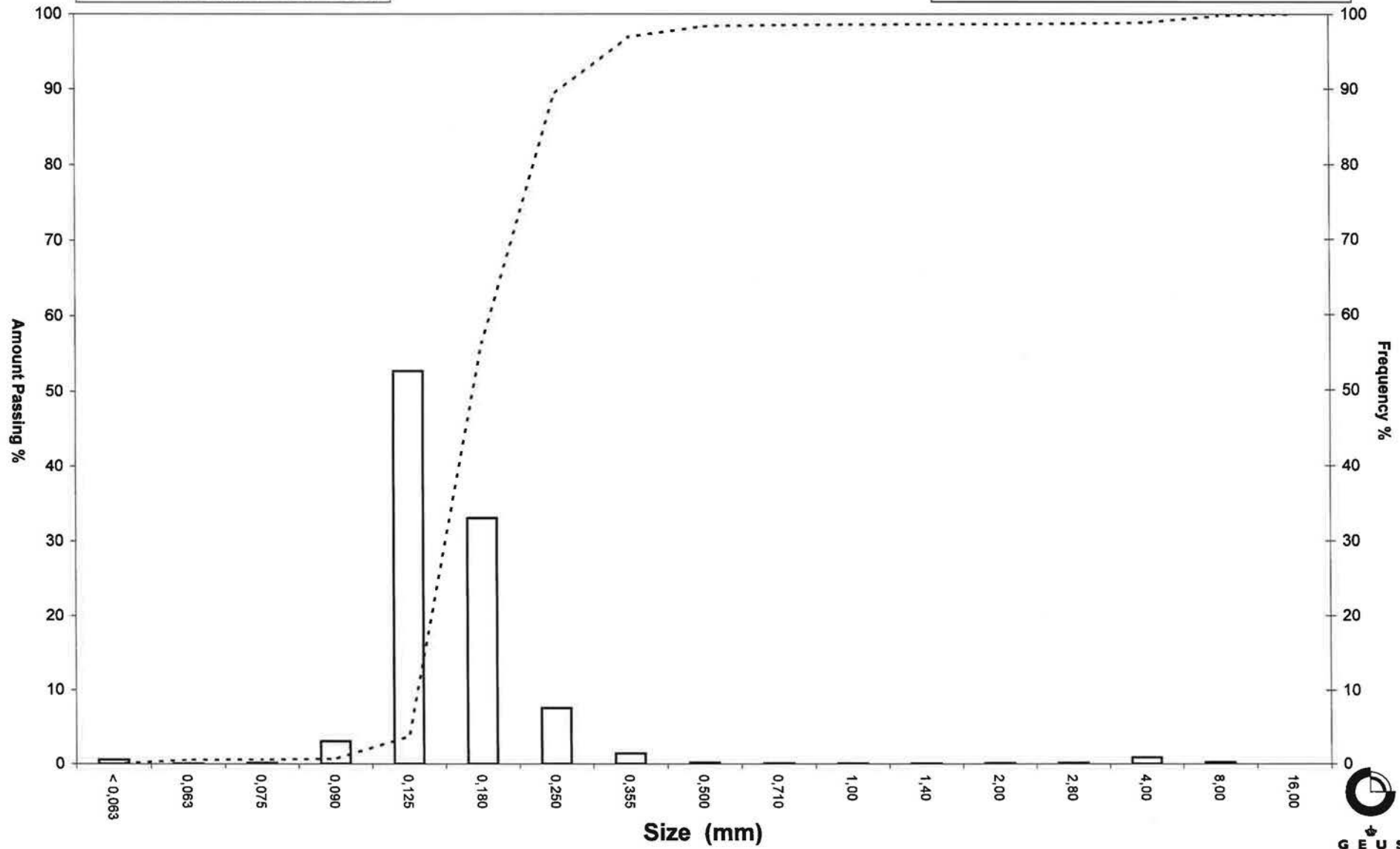
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS054



# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS055  
**Lab. Id:** KF 55  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 105,21 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,00	0,00	100,00
2,00	-1,00	0,00	0,00	100,00
1,40	-0,49	0,06	0,06	99,94
1,00	0,00	0,30	0,29	99,66
0,710	0,49	0,73	0,69	98,96
0,500	1,00	2,58	2,45	96,51
0,355	1,49	18,36	17,45	79,06
0,250	2,00	60,72	57,71	21,35
0,180	2,47	19,87	18,89	2,46
0,125	3,00	2,33	2,21	0,25
0,090	3,47	0,11	0,10	0,14
0,075	3,74	0,01	0,01	0,13
0,063	3,99	0,00	0,00	0,13
< 0,063	> 3,99	0,14	0,13	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	0,13
Sand, fine (0,063 mm - 0,200 mm):	7,72
Sand, medium (0,2 mm - 0,6 mm):	89,82
Sand, coarse (0,6 mm - 2 mm):	2,32
Gravel (> 2 mm):	0,00
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,49	1,04
16%	84%	0,40	1,34
25%	75%	0,35	1,52
40%	60%	0,32	1,64
Median 50%	50%	0,30	1,73
75%	25%	0,26	1,96
84%	16%	0,23	2,12
90%	10%	0,21	2,27
95%	5%	0,19	2,40

## Moments Statistics

Mean	1,73
Sorting	0,40
Skewness	0,00
Kurtosis	1,28
Uniformity Coefficient	1,54

The analysis is executed according to DS405.9 DS/EN933-1 extended by sieves to the ½ phi scale.

Size Classes and Percentiles are found by linear interpolation

## Formulas

Mean ( $\phi_{16\%} + \phi_{84\%} + \phi_{50\%}$ ) / 3 (Folk and Ward 1957)

Sorting ( $\phi_{84\%} - \phi_{16\%}$ ) / 4 + ( $\phi_{95\%} - \phi_{5\%}$ ) / 6,6 (Folk and Ward 1957)

Kurtosis ( $\phi_{95\%} - \phi_{5\%}$ ) / (2,44 \* ( $\phi_{75\%} - \phi_{25\%}$ )) (Folk and Ward 1957)

Skewness ( $\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}$ ) / (2 \* ( $\phi_{84\%} - \phi_{16\%}$ )) + ( $\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}$ ) / (2 \* ( $\phi_{95\%} - \phi_{5\%}$ )) (Folk and Ward 1957)

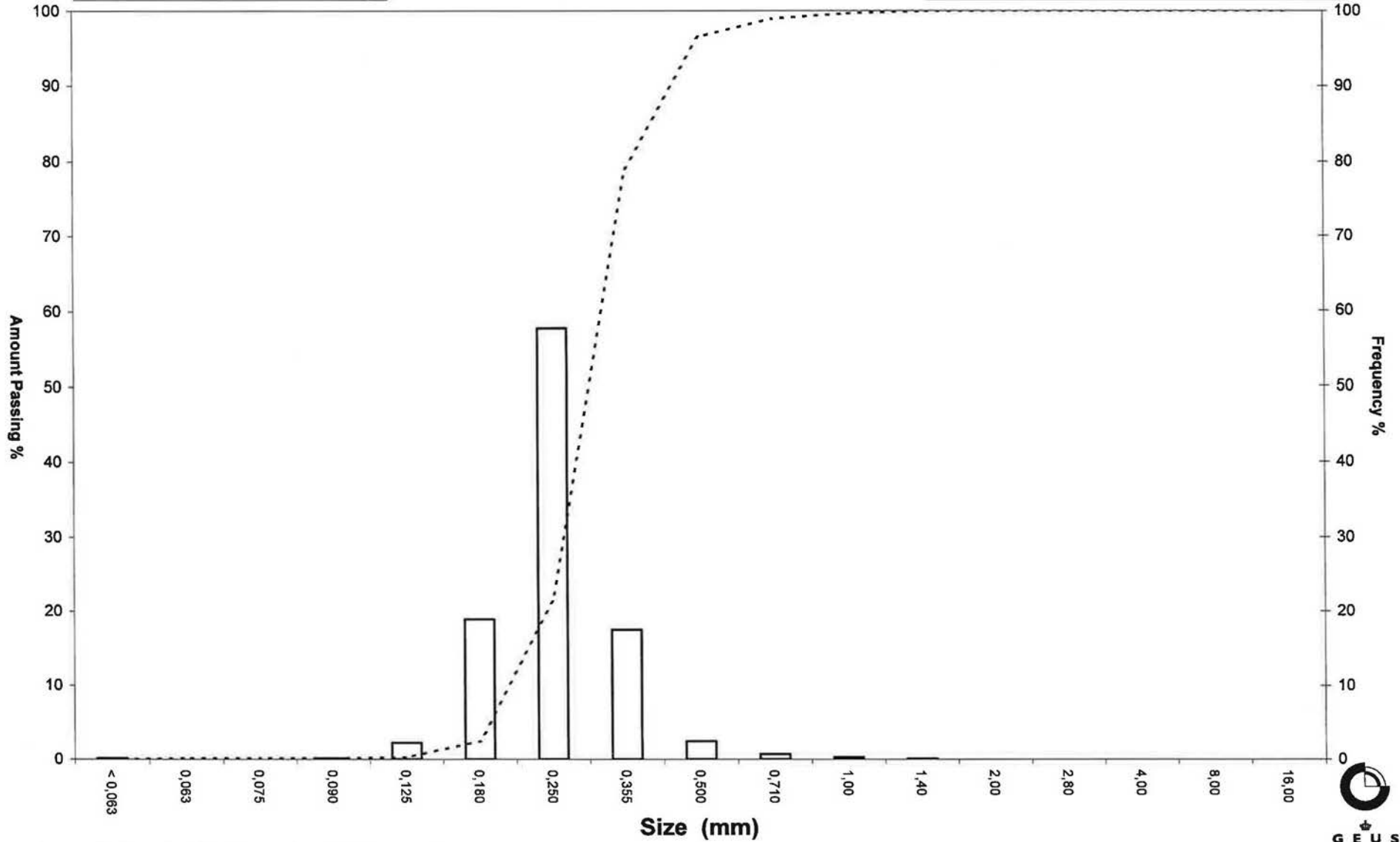
Uniformity Coefficient ( $d_{60\%} / d_{10\%}$ ) (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS055



# Grain Size Distribution

## Geotechnical

**Sample Id:** AQKFGS056  
**Lab. Id:** KF 56  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 100,82 g

### Size Fractions

Size	Size	Weight	Weight	Cumulated amount
mm	φ	g	%	amount passing %
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,00	0,00	100,00
2,00	-1,00	0,00	0,00	100,00
1,40	-0,49	0,07	0,07	99,93
1,00	0,00	0,84	0,83	99,10
0,710	0,49	2,53	2,51	96,59
0,500	1,00	7,35	7,29	89,30
0,355	1,49	20,56	20,39	68,90
0,250	2,00	38,29	37,98	30,93
0,180	2,47	25,61	25,40	5,52
0,125	3,00	5,28	5,24	0,29
0,090	3,47	0,15	0,15	0,14
0,075	3,74	0,01	0,01	0,13
0,063	3,99	0,00	0,00	0,13
< 0,063	> 3,99	0,13	0,13	0,00

Sieve Analysis

Gravel

Sand

### Size Classes (DGF-Bulletin 1 1988)

Size Class	Weight %
Silt and clay (< 0,063 mm):	0,13
Sand, fine (0,063 mm - 0,200 mm):	12,65
Sand, medium (0,2 mm - 0,6 mm):	79,99
Sand, coarse (0,6 mm - 2 mm):	7,23
Gravel (> 2 mm):	0,00
<b>Sum:</b>	<b>100,00</b>

### Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	φ
Amount in sieve	Amount passing		
5%	95%	0,66	0,59
16%	84%	0,46	1,11
25%	75%	0,40	1,33
40%	60%	0,33	1,60
Median 50%	50%	0,30	1,72
75%	25%	0,23	2,10
84%	16%	0,21	2,26
90%	10%	0,19	2,38
95%	5%	0,17	2,52

### Moments Statistics

Mean	1,70
Sorting	0,58
Skewness	-0,12
Kurtosis	1,03
Uniformity Coefficient	1,72

The analysis is executed according to DS405.9 DS/EN933-1 extended by sieves to the 1/2 phi scale.

Size Classes and Percentiles are found by linear interpolation

### Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

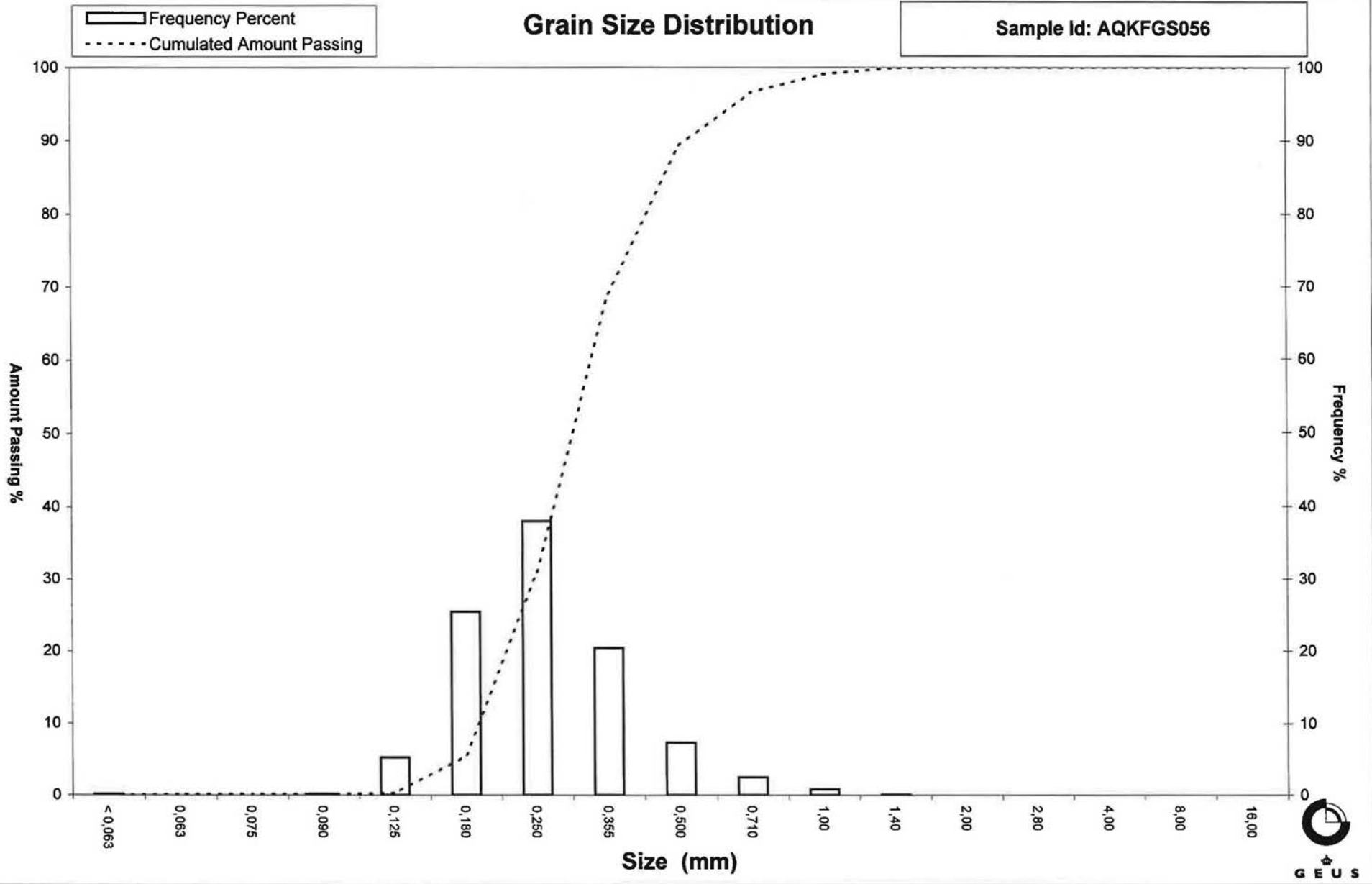
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS056



# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS057  
**Lab. Id:** KF 57  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 112,64 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	11,52	10,23	89,77
4,00	-2,00	4,53	4,02	85,75
2,80	-1,49	1,93	1,71	84,04
2,00	-1,00	1,24	1,10	82,94
1,40	-0,49	0,90	0,80	82,14
1,00	0,00	1,08	0,96	81,18
0,710	0,49	1,28	1,14	80,04
0,500	1,00	2,53	2,25	77,80
0,355	1,49	14,79	13,13	64,67
0,250	2,00	48,45	43,01	21,65
0,180	2,47	20,37	18,08	3,57
0,125	3,00	3,46	3,07	0,50
0,090	3,47	0,20	0,18	0,32
0,075	3,74	0,01	0,01	0,31
0,063	3,99	0,00	0,00	0,31
< 0,063	> 3,99	0,35	0,31	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	0,31
Sand, fine (0,063 mm - 0,200 mm):	8,43
Sand, medium (0,2 mm - 0,6 mm):	70,13
Sand, coarse (0,6 mm - 2 mm):	4,07
Gravel (> 2 mm):	17,06
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	12,09	-3,60
16%	84%	2,77	-1,47
25%	75%	0,47	1,09
40%	60%	0,34	1,54
Median 50%	50%	0,32	1,65
75%	25%	0,26	1,95
84%	16%	0,23	2,13
90%	10%	0,20	2,29
95%	5%	0,19	2,43

## Moments Statistics

Mean	0,77
Sorting	1,81
Skewness	-0,74
Kurtosis	2,87
Uniformity Coefficient	1,68

The analysis is executed according to DS405.9 DS/EN933-1 extended by sieves to the ½ phi scale.

Size Classes and Percentiles are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

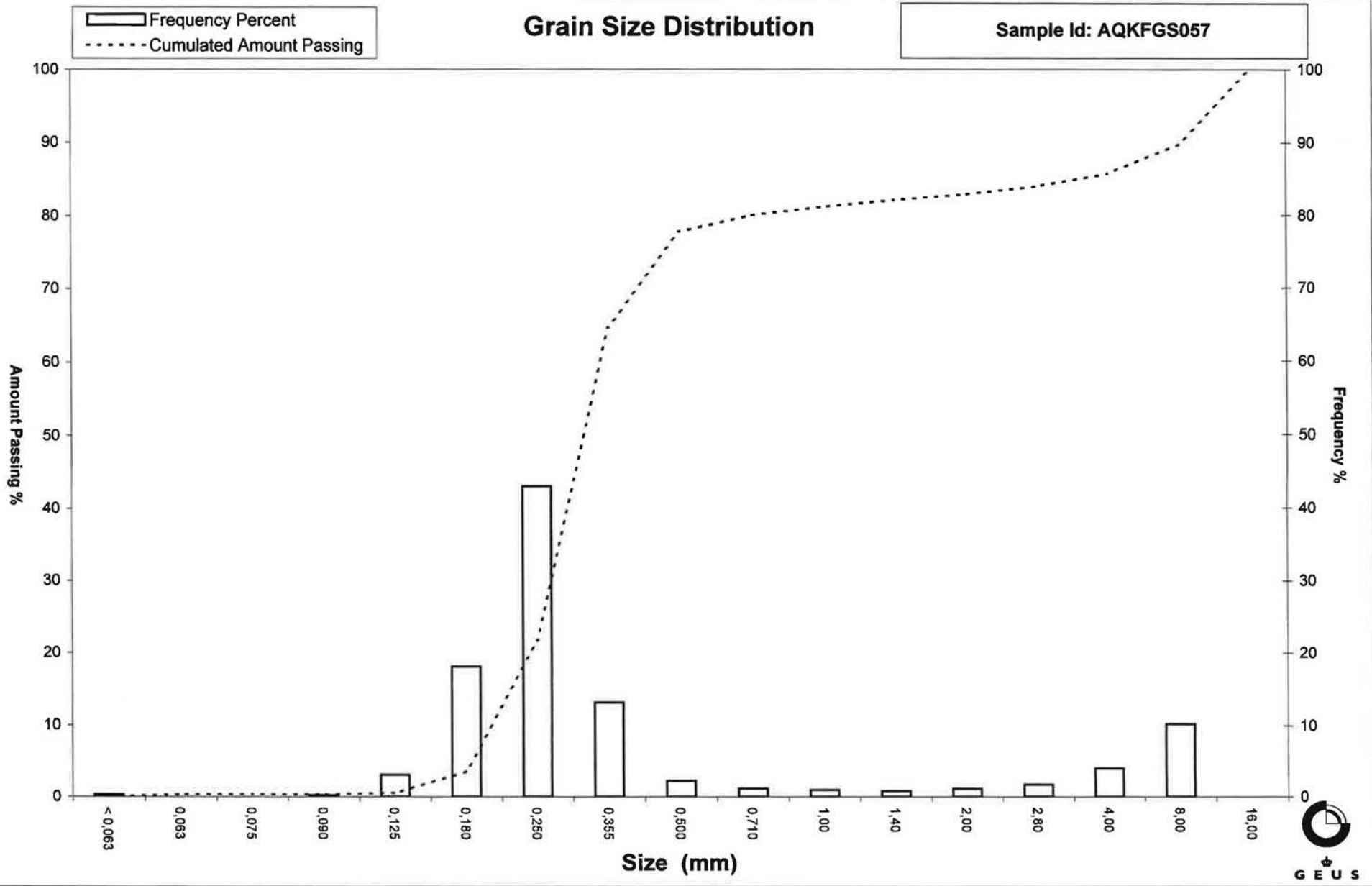
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS057





# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS058  
**Lab. Id:** KF 58  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 112,11 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount
mm	Φ	g	%	amount passing %
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,00	0,00	100,00
2,00	-1,00	0,00	0,00	100,00
1,40	-0,49	0,00	0,00	100,00
1,00	0,00	0,00	0,00	100,00
0,710	0,49	0,00	0,00	100,00
0,500	1,00	0,02	0,02	99,98
0,355	1,49	0,25	0,22	99,76
0,250	2,00	0,43	0,38	99,38
0,180	2,47	0,80	0,71	98,66
0,125	3,00	7,45	6,65	92,02
0,090	3,47	35,61	31,76	60,25
0,075	3,74	13,02	11,61	48,64
0,063	3,99	13,98	12,47	36,17
< 0,063	> 3,99	40,55	36,17	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

Size Class	Weight %
Silt and clay (< 0,063 mm)	36,17
Sand, fine (0,063 mm - 0,200 mm)	62,70
Sand, medium (0,2 mm - 0,6 mm)	1,12
Sand, coarse (0,6 mm - 2 mm)	0,01
Gravel (> 2 mm)	0,00
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,15	2,74
16%	84%	0,12	3,11
25%	75%	0,11	3,23
40%	60%	0,09	3,48
Median 50%	50%	0,08	3,70
75%	25%	-----	-----
84%	16%	-----	-----
90%	10%	-----	-----
95%	5%	-----	-----

## Moments Statistics

Mean	3,40
Sorting	-----
Skewness	-----
Kurtosis	-----
Uniformity Coefficient	-----

The analysis is executed according to DS405.9 DS/EN933-1 extended by sieves to the ½ phi scale.

Size Classes and Percentiles are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

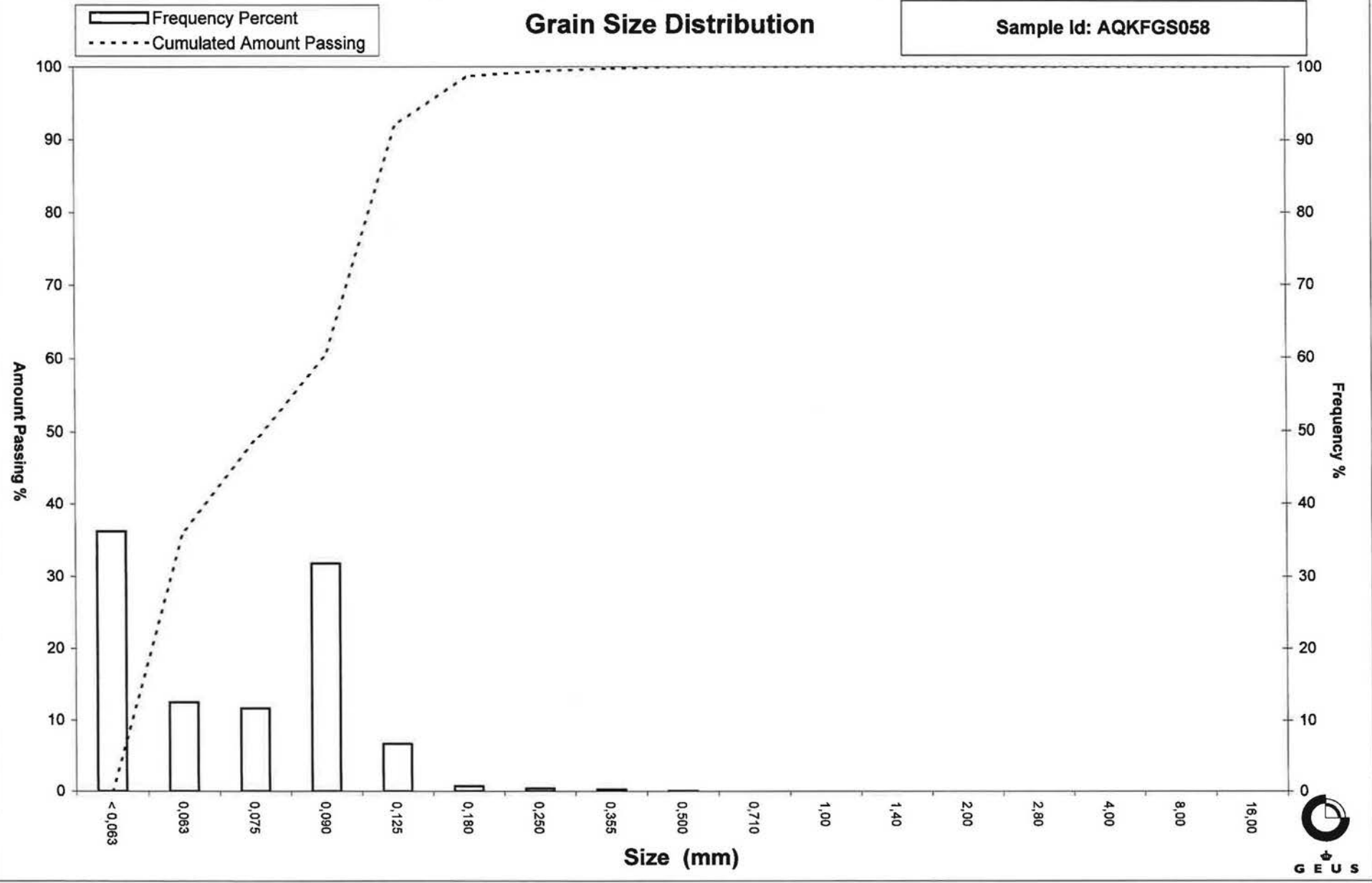
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS058



# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS059  
**Lab. Id:** KF 59  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 106,3 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,44	0,41	99,59
2,80	-1,49	0,00	0,00	99,59
2,00	-1,00	0,00	0,00	99,59
1,40	-0,49	0,06	0,06	99,53
1,00	0,00	0,52	0,49	99,04
0,710	0,49	2,61	2,46	96,59
0,500	1,00	7,19	6,76	89,82
0,355	1,49	19,19	18,05	71,77
0,250	2,00	38,99	36,68	35,09
0,180	2,47	20,00	18,81	16,27
0,125	3,00	14,38	13,53	2,75
0,090	3,47	1,83	1,72	1,03
0,075	3,74	0,08	0,08	0,95
0,063	3,99	0,05	0,05	0,90
< 0,063	> 3,99	0,96	0,90	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

Size Class	Weight %
Silt and clay (< 0,063 mm)	0,90
Sand, fine (0,063 mm - 0,200 mm)	20,75
Sand, medium (0,2 mm - 0,6 mm)	71,39
Sand, coarse (0,6 mm - 2 mm)	6,54
Gravel (> 2 mm)	0,41
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,66	0,60
16%	84%	0,45	1,14
25%	75%	0,38	1,39
40%	60%	0,32	1,64
Median 50%	50%	0,29	1,77
75%	25%	0,21	2,23
84%	16%	0,18	2,48
90%	10%	0,15	2,69
95%	5%	0,13	2,90

## Moments Statistics

Mean	1,80
Sorting	0,68
Skewness	0,02
Kurtosis	1,12
Uniformity Coefficient	2,08

The analysis is executed according to DS405.9  
 DS/EN933-1 extended by sieves to the 1/2 phi scale.

Size Classes and Percentiles  
 are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

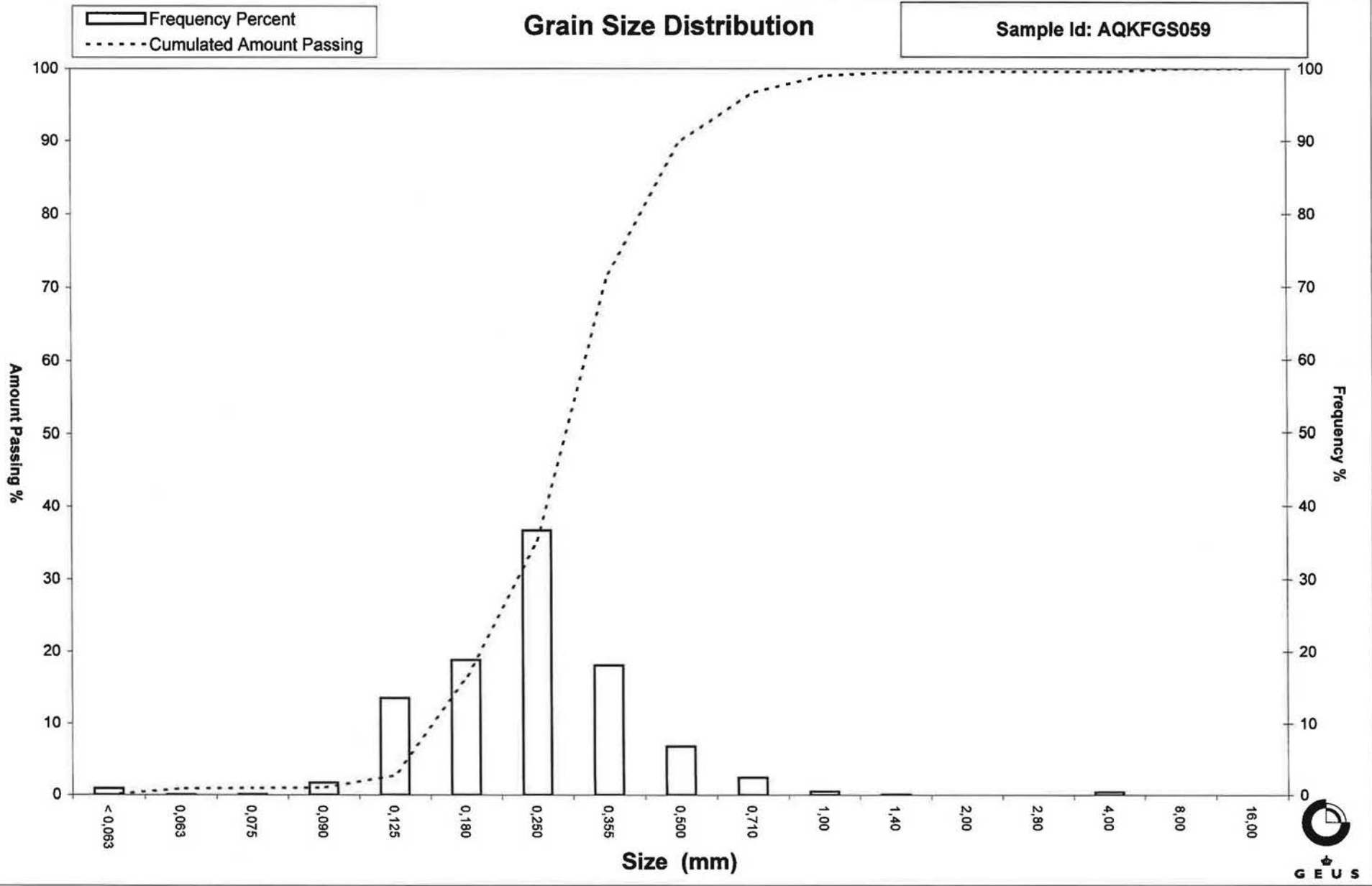
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on  
 "Amount in sieve". Uniformity coefficient is based on  
 "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS059



# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS062  
**Lab. Id:** KF 62  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 117,18 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	1,87	1,60	98,40
2,80	-1,49	0,83	0,71	97,70
2,00	-1,00	0,43	0,37	97,33
1,40	-0,49	0,33	0,28	97,05
1,00	0,00	2,63	2,24	94,80
0,710	0,49	26,33	22,47	72,33
0,500	1,00	37,73	32,20	40,13
0,355	1,49	15,18	12,95	27,18
0,250	2,00	23,58	20,12	7,06
0,180	2,47	6,77	5,78	1,28
0,125	3,00	0,66	0,56	0,72
0,090	3,47	0,07	0,06	0,66
0,075	3,74	0,03	0,03	0,63
0,063	3,99	0,01	0,01	0,62
< 0,063	> 3,99	0,73	0,62	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

Size Class	Weight %
Silt and clay (< 0,063 mm):	0,62
Sand, fine (0,063 mm - 0,200 mm):	2,31
Sand, medium (0,2 mm - 0,6 mm):	52,54
Sand, coarse (0,6 mm - 2 mm):	41,86
Gravel (> 2 mm):	2,67
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	1,04	-0,05
16%	84%	0,86	0,22
25%	75%	0,74	0,43
40%	60%	0,63	0,67
Median 50%	50%	0,56	0,83
75%	25%	0,34	1,54
84%	16%	0,30	1,75
90%	10%	0,27	1,91
95%	5%	0,23	2,15

## Moments Statistics

Mean	0,93
Sorting	0,72
Skewness	0,21
Kurtosis	0,81
Uniformity Coefficient	2,37

The analysis is executed according to DS405.9 DS/EN933-1 extended by sieves to the 1/2 phi scale.

Size Classes and Percentiles are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

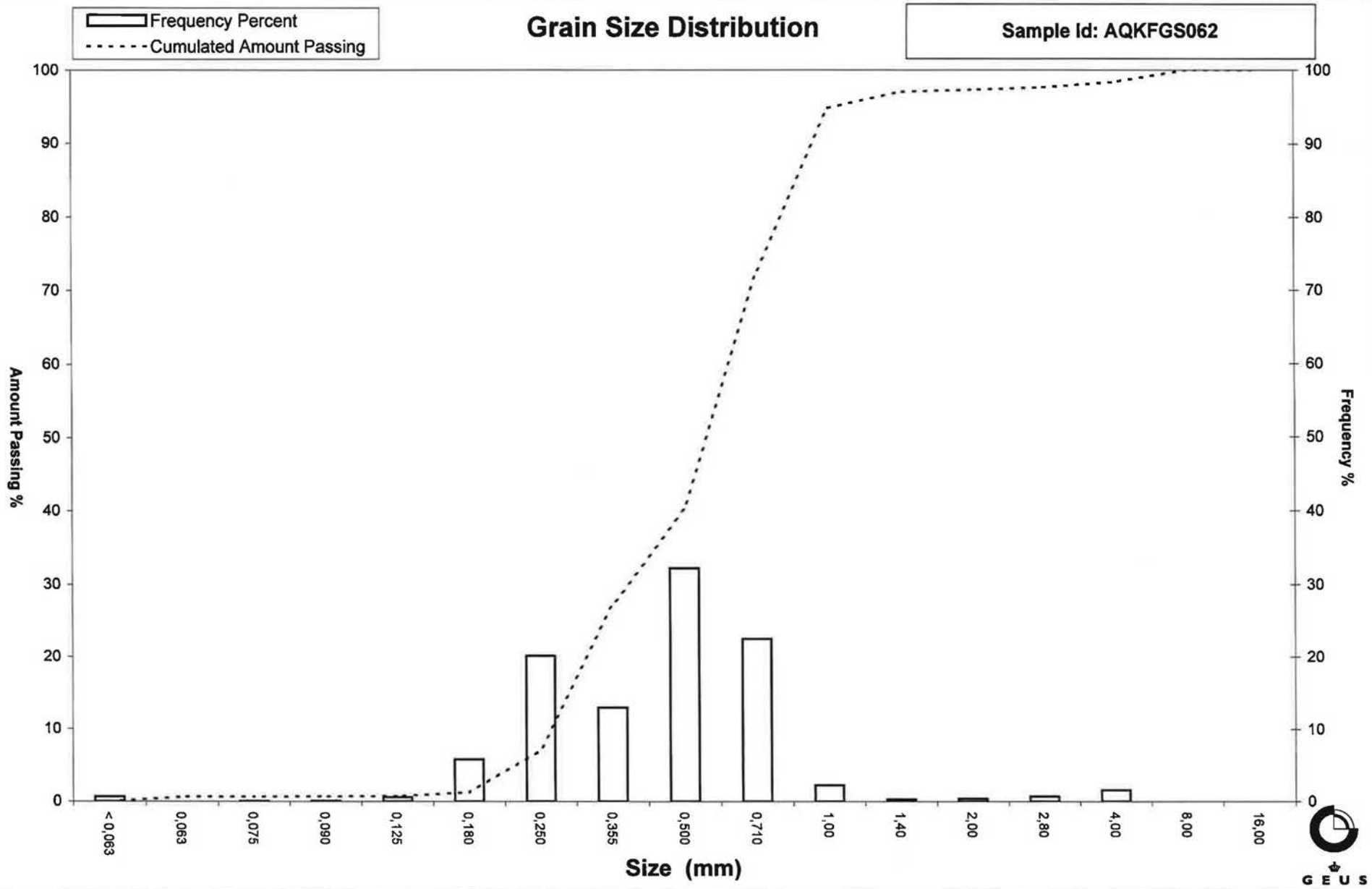
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQQFGS062



# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS063  
**Lab. Id:** KF 63  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 8 mm.



**Total Weight** 208,09 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	18,60	8,94	91,06
4,00	-2,00	32,89	15,81	75,26
2,80	-1,49	31,52	15,15	60,11
2,00	-1,00	9,78	4,70	55,41
1,40	-0,49	6,77	3,25	52,16
1,00	0,00	6,78	3,26	48,90
0,710	0,49	6,23	2,99	45,90
0,500	1,00	8,23	3,96	41,95
0,355	1,49	15,39	7,40	34,55
0,250	2,00	27,19	13,07	21,49
0,180	2,47	33,04	15,88	5,61
0,125	3,00	9,15	4,40	1,21
0,090	3,47	1,63	0,78	0,43
0,075	3,74	0,11	0,05	0,37
0,063	3,99	0,01	0,00	0,37
< 0,063	> 3,99	0,77	0,37	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

Size Class	Weight %
Silt and clay (< 0,063 mm):	0,37
Sand, fine (0,063 mm - 0,200 mm):	9,77
Sand, medium (0,2 mm - 0,6 mm):	33,69
Sand, coarse (0,6 mm - 2 mm):	11,58
Gravel (> 2 mm):	44,59
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	11,52	-3,53
16%	84%	6,21	-2,64
25%	75%	3,98	-1,99
40%	60%	2,78	-1,48
Median 50%	50%	1,14	-0,18
75%	25%	0,28	1,85
84%	16%	0,23	2,15
90%	10%	0,20	2,33
95%	5%	0,17	2,54

## Moments Statistics

Mean	-0,22
Sorting	2,11
Skewness	-0,06
Kurtosis	0,65
Uniformity Coefficient	13,95

The analysis is executed according to DS405.9  
 DS/EN933-1 extended by sieves to the 1/2 phi scale.

Size Classes and Percentiles  
 are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

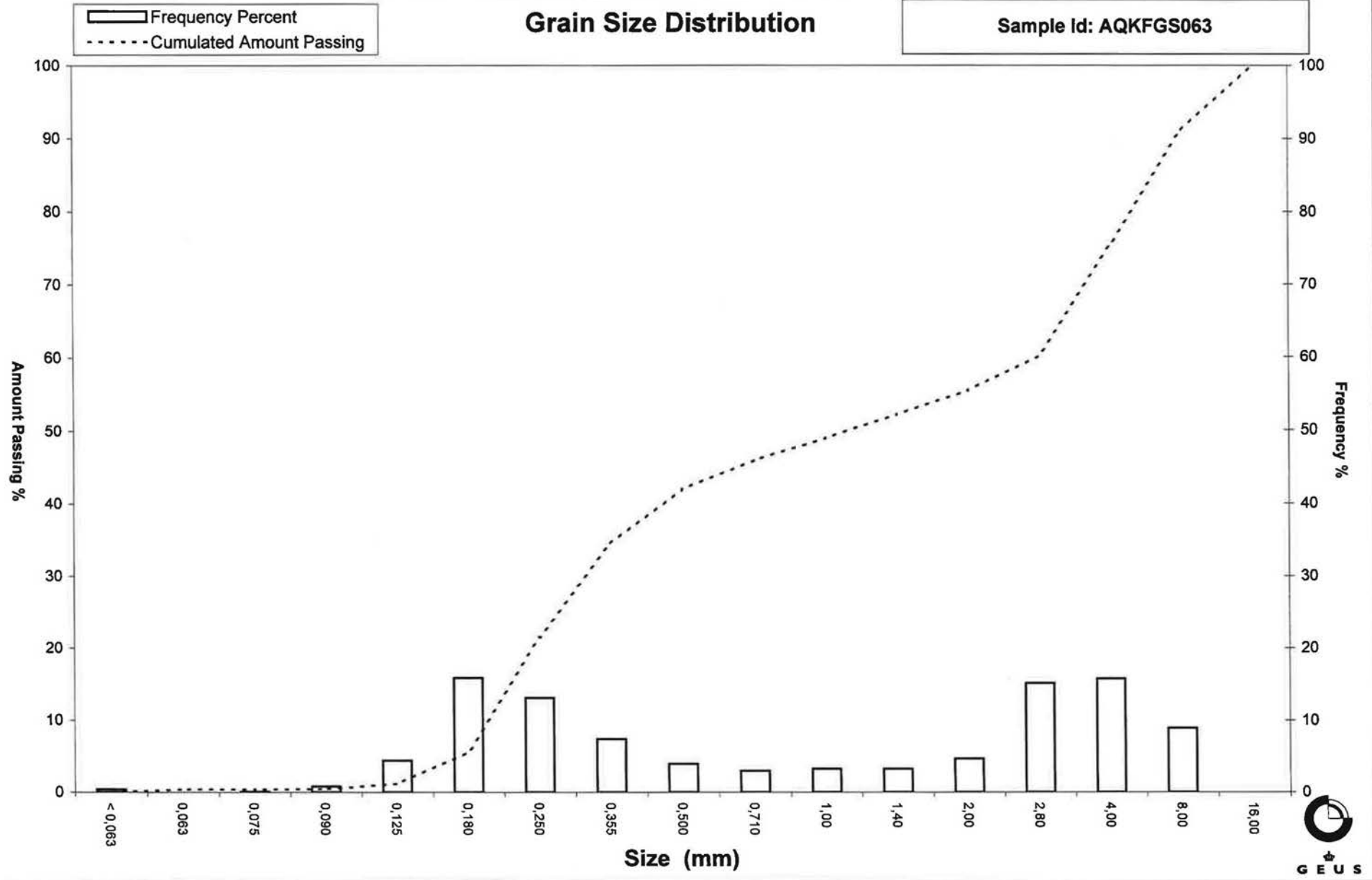
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on  
 "Amount in sieve". Uniformity coefficient is based on  
 "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS063





# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS064  
**Lab. Id:** KF 64  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 109,09 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,70	0,64	99,36
2,80	-1,49	0,34	0,31	99,05
2,00	-1,00	0,50	0,46	98,59
1,40	-0,49	0,58	0,53	98,06
1,00	0,00	2,18	2,00	96,06
0,710	0,49	5,08	4,66	91,40
0,500	1,00	10,84	9,94	81,46
0,355	1,49	31,14	28,55	52,92
0,250	2,00	41,09	37,67	15,25
0,180	2,47	13,35	12,24	3,02
0,125	3,00	2,83	2,59	0,42
0,090	3,47	0,24	0,22	0,20
0,075	3,74	0,01	0,01	0,19
0,063	3,99	0,00	0,00	0,19
< 0,063	> 3,99	0,21	0,19	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

Size Class	Weight %
Silt and clay (< 0,063 mm):	0,19
Sand, fine (0,063 mm - 0,200 mm):	6,32
Sand, medium (0,2 mm - 0,6 mm):	79,68
Sand, coarse (0,6 mm - 2 mm):	12,39
Gravel (> 2 mm):	1,41
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,93	0,10
16%	84%	0,55	0,85
25%	75%	0,47	1,10
40%	60%	0,39	1,35
Median 50%	50%	0,35	1,53
75%	25%	0,28	1,85
84%	16%	0,25	1,99
90%	10%	0,22	2,18
95%	5%	0,19	2,39

## Moments Statistics

Mean	1,46
Sorting	0,63
Skewness	-0,22
Kurtosis	1,24
Uniformity Coefficient	1,78

The analysis is executed according to DS405.9 DS/EN933-1 extended by sieves to the ½ phi scale.

Size Classes and Percentiles are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

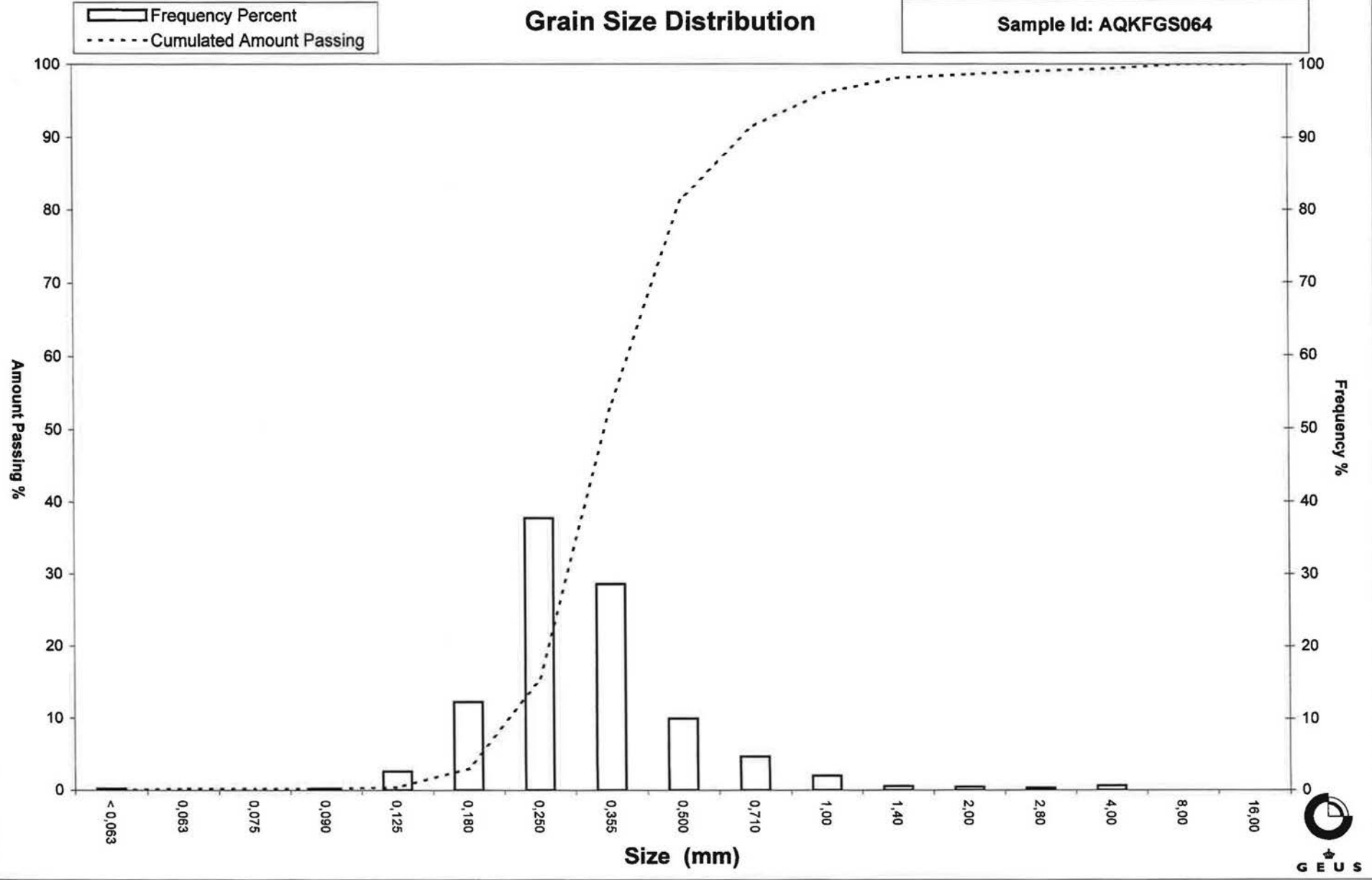
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS064



# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS065  
**Lab. Id:** KF 65  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 102,27 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,23	0,22	99,78
2,80	-1,49	0,02	0,02	99,76
2,00	-1,00	0,05	0,05	99,71
1,40	-0,49	0,01	0,01	99,70
1,00	0,00	0,01	0,01	99,69
0,710	0,49	0,05	0,05	99,64
0,500	1,00	0,28	0,27	99,36
0,355	1,49	2,55	2,49	96,87
0,250	2,00	13,63	13,33	83,54
0,180	2,47	38,19	37,34	46,20
0,125	3,00	42,75	41,80	4,40
0,090	3,47	3,65	3,57	0,83
0,075	3,74	0,15	0,15	0,68
0,063	3,99	0,08	0,08	0,61
< 0,063	> 3,99	0,62	0,61	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

Size Class	Weight %
Silt and clay (< 0,063 mm):	0,61
Sand, fine (0,063 mm - 0,200 mm):	56,26
Sand, medium (0,2 mm - 0,6 mm):	42,62
Sand, coarse (0,6 mm - 2 mm):	0,21
Gravel (> 2 mm):	0,29
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,34	1,56
16%	84%	0,25	1,98
25%	75%	0,23	2,10
40%	60%	0,21	2,28
Median 50%	50%	0,19	2,42
75%	25%	0,15	2,72
84%	16%	0,14	2,83
90%	10%	0,13	2,92
95%	5%	0,13	2,99

## Moments Statistics

Mean	2,41
Sorting	0,43
Skewness	-0,11
Kurtosis	0,95
Uniformity Coefficient	1,56

The analysis is executed according to DS405.9  
 DS/EN933-1 extended by sieves to the ½ phi scale.

Size Classes and Percentiles  
 are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

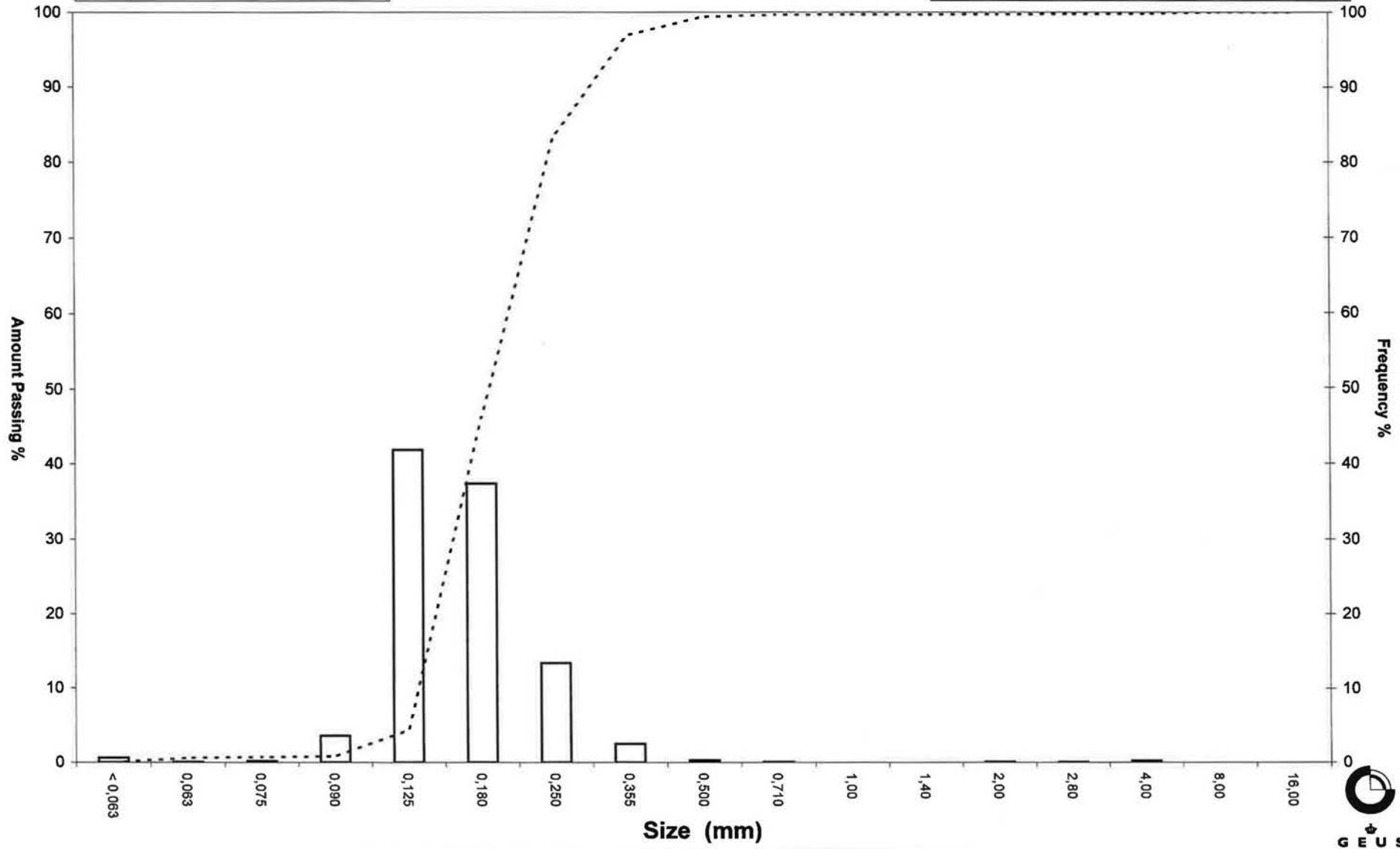
Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS065

Frequency Percent  
Cumulated Amount Passing



# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS066  
**Lab. Id:** KF 66  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 100,01 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,02	0,02	99,98
2,00	-1,00	0,06	0,06	99,92
1,40	-0,49	0,08	0,08	99,84
1,00	0,00	0,36	0,36	99,48
0,710	0,49	1,15	1,15	98,33
0,500	1,00	5,62	5,62	92,71
0,355	1,49	19,56	19,56	73,15
0,250	2,00	41,03	41,03	32,13
0,180	2,47	24,99	24,99	7,14
0,125	3,00	6,37	6,37	0,77
0,090	3,47	0,20	0,20	0,57
0,075	3,74	0,01	0,01	0,56
0,063	3,99	0,00	0,00	0,56
< 0,063	> 3,99	0,56	0,56	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	0,56
Sand, fine (0,063 mm - 0,200 mm):	13,72
Sand, medium (0,2 mm - 0,6 mm):	81,11
Sand, coarse (0,6 mm - 2 mm):	4,53
Gravel (> 2 mm):	0,08
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,59	0,77
16%	84%	0,44	1,20
25%	75%	0,37	1,44
40%	60%	0,32	1,64
Median 50%	50%	0,30	1,76
75%	25%	0,23	2,12
84%	16%	0,20	2,29
90%	10%	0,19	2,41
95%	5%	0,16	2,63

## Moments Statistics

Mean	1,75
Sorting	0,55
Skewness	-0,04
Kurtosis	1,12
Uniformity Coefficient	1,71

The analysis is executed according to DS405.9 DS/EN933-1 extended by sieves to the 1/2 phi scale.

Size Classes and Percentiles are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

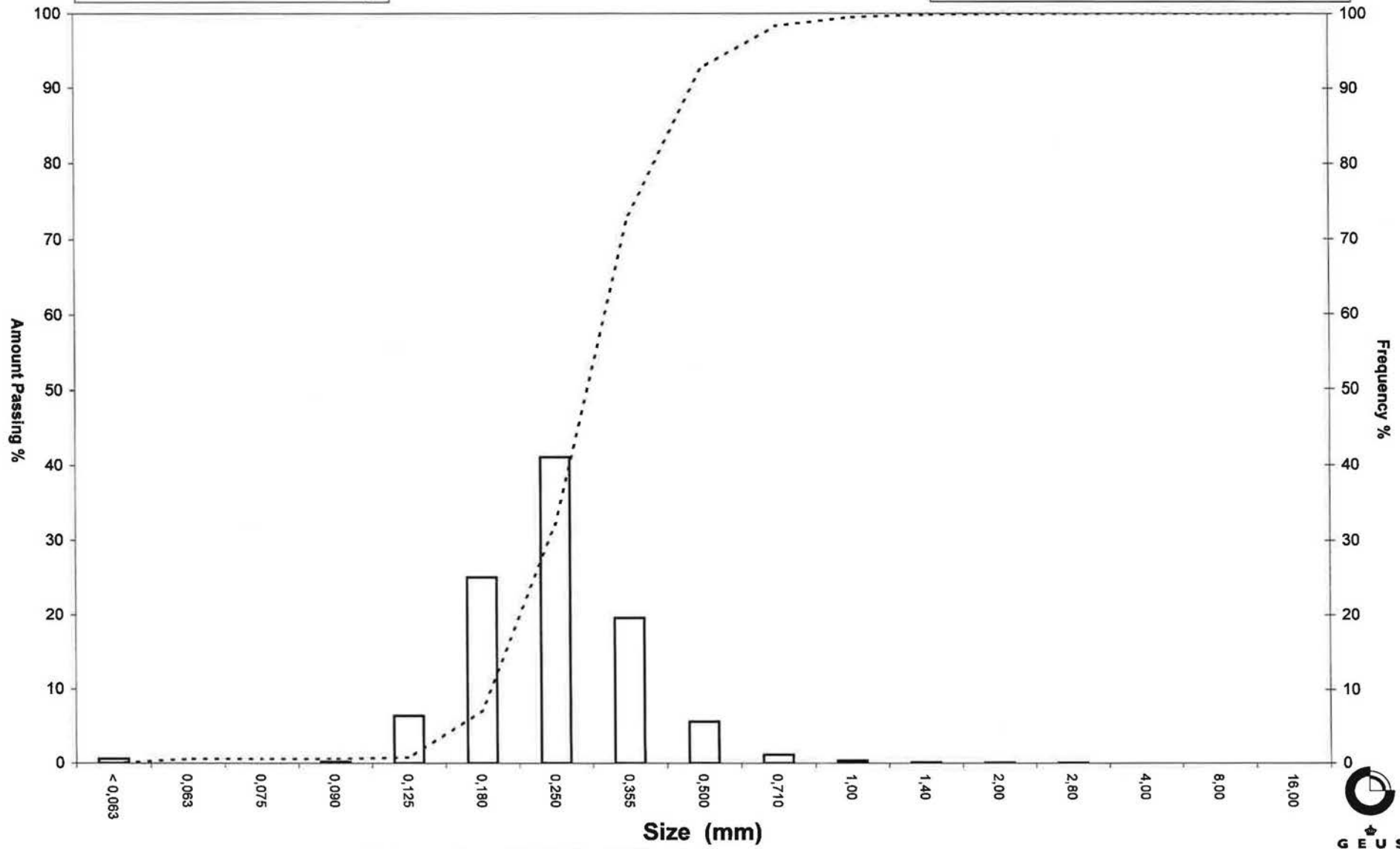
Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS066

Frequency Percent  
Cumulated Amount Passing



# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS067  
**Lab. Id:** KF 67  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 8 mm.



**Total Weight** 210,87 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	1,29	0,61	99,39
4,00	-2,00	3,23	1,53	97,86
2,80	-1,49	2,33	1,10	96,75
2,00	-1,00	2,53	1,20	95,55
1,40	-0,49	4,70	2,23	93,32
1,00	0,00	11,84	5,61	87,71
0,710	0,49	19,38	9,19	78,52
0,500	1,00	37,37	17,72	60,80
0,355	1,49	48,52	23,01	37,79
0,250	2,00	52,62	24,95	12,83
0,180	2,47	21,56	10,22	2,61
0,125	3,00	4,48	2,12	0,48
0,090	3,47	0,19	0,09	0,39
0,075	3,74	0,02	0,01	0,38
0,063	3,99	0,00	0,00	0,38
< 0,063	> 3,99	0,81	0,38	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

Size Class	Weight %
Silt and clay (< 0,063 mm)	0,38
Sand, fine (0,063 mm - 0,200 mm)	5,15
Sand, medium (0,2 mm - 0,6 mm)	63,71
Sand, coarse (0,6 mm - 2 mm)	26,32
Gravel (> 2 mm)	4,45
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	1,85	-0,89
16%	84%	0,88	0,18
25%	75%	0,67	0,58
40%	60%	0,49	1,01
Median 50%	50%	0,43	1,21
75%	25%	0,30	1,73
84%	16%	0,26	1,93
90%	10%	0,23	2,12
95%	5%	0,20	2,35

## Moments Statistics

Mean	1,11
Sorting	0,93
Skewness	-0,24
Kurtosis	1,15
Uniformity Coefficient	2,15

The analysis is executed according to DS405.9 DS/EN933-1 extended by sieves to the ½ phi scale.

Size Classes and Percentiles are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

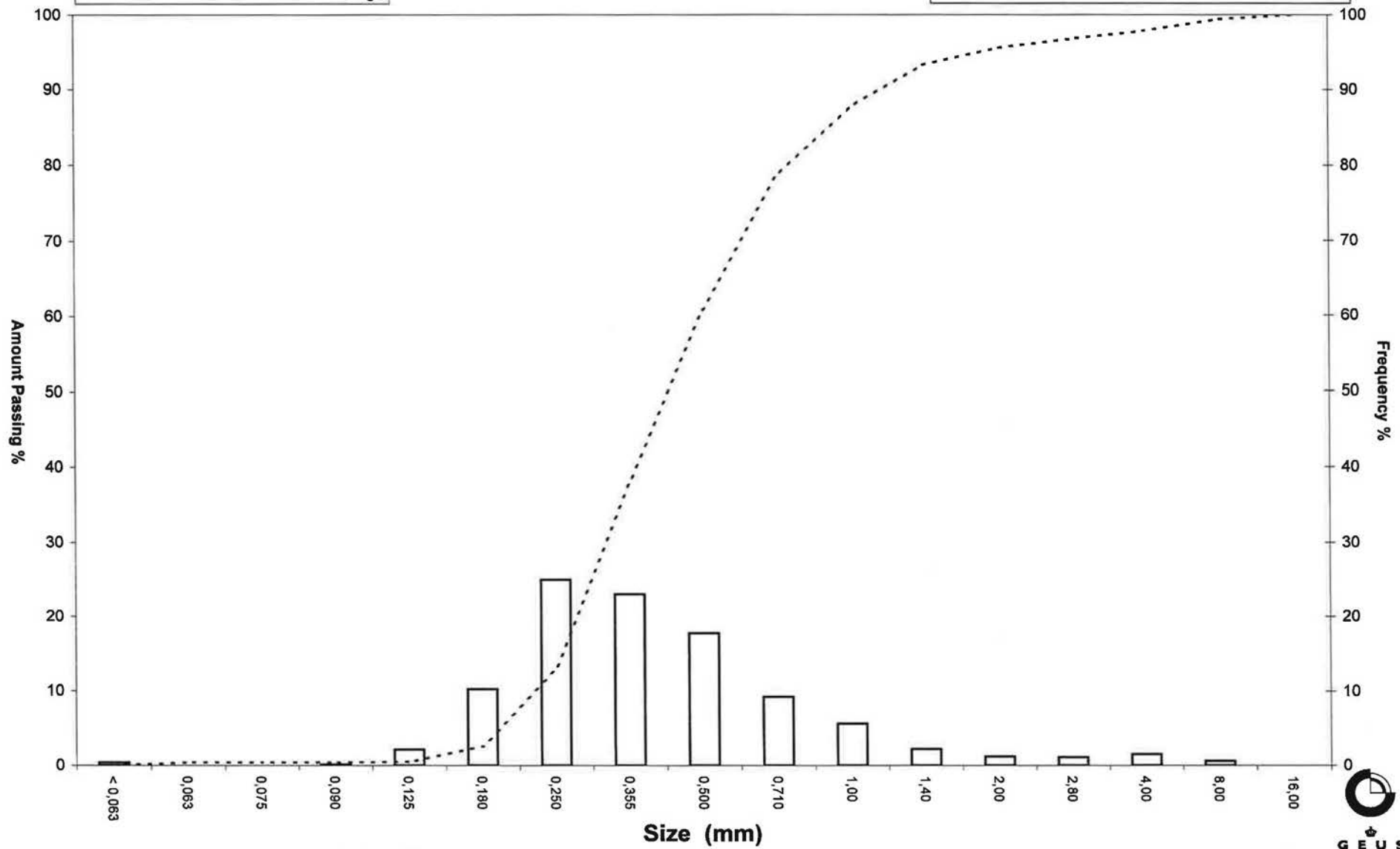
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS067





# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS068  
**Lab. Id:** KF 68  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 106,13 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount
mm	Φ	g	%	amount passing %
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,00	0,00	100,00
2,00	-1,00	0,10	0,09	99,91
1,40	-0,49	0,08	0,08	99,83
1,00	0,00	0,42	0,40	99,43
0,710	0,49	1,29	1,22	98,22
0,500	1,00	3,88	3,66	94,56
0,355	1,49	22,49	21,19	73,37
0,250	2,00	52,07	49,06	24,31
0,180	2,47	21,82	20,56	3,75
0,125	3,00	2,54	2,39	1,36
0,090	3,47	1,21	1,14	0,22
0,075	3,74	0,01	0,01	0,21
0,063	3,99	0,00	0,00	0,21
< 0,063	> 3,99	0,22	0,21	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

Size Class	Weight %
Silt and clay (< 0,063 mm):	0,21
Sand, fine (0,063 mm - 0,200 mm):	9,42
Sand, medium (0,2 mm - 0,6 mm):	86,68
Sand, coarse (0,6 mm - 2 mm):	3,60
Gravel (> 2 mm):	0,09
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,53	0,93
16%	84%	0,43	1,23
25%	75%	0,37	1,45
40%	60%	0,33	1,62
Median 50%	50%	0,30	1,71
75%	25%	0,25	1,99
84%	16%	0,22	2,17
90%	10%	0,20	2,31
95%	5%	0,18	2,44

## Moments Statistics

Mean	1,70
Sorting	0,47
Skewness	-0,03
Kurtosis	1,14
Uniformity Coefficient	1,62

The analysis is executed according to DS405.9 DS/EN933-1 extended by sieves to the ½ phi scale.

Size Classes and Percentiles are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

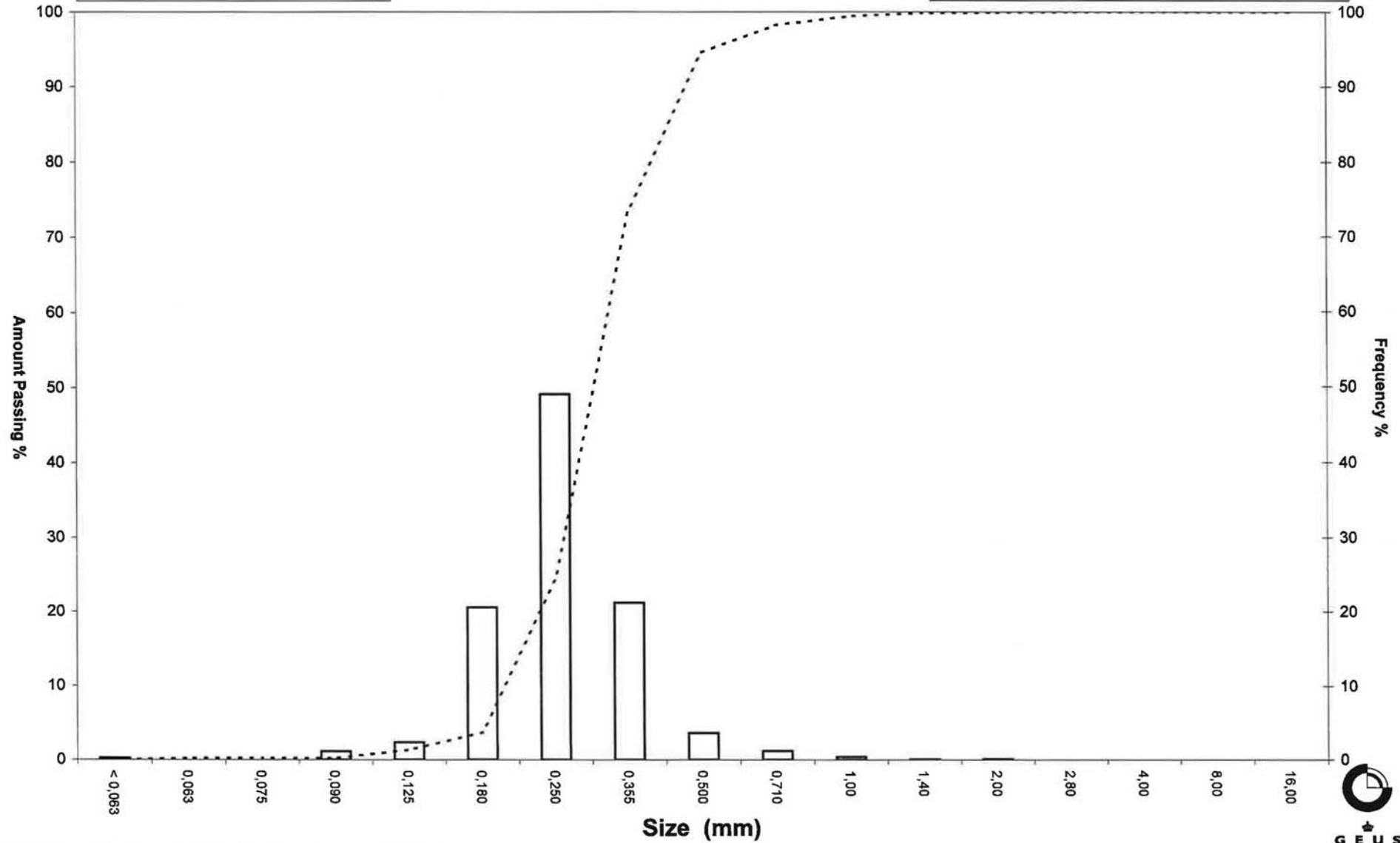
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS068



# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS069  
**Lab. Id:** KF 69  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 8 mm.



**Total Weight** 235,51 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount
mm	φ	g	%	amount passing %
16,00	-4,00	23,37	9,92	90,08
8,00	-3,00	7,02	2,98	87,10
4,00	-2,00	24,02	10,20	76,90
2,80	-1,49	10,08	4,28	72,62
2,00	-1,00	8,36	3,55	69,07
1,40	-0,49	6,59	2,80	66,27
1,00	0,00	5,75	2,44	63,83
0,710	0,49	5,20	2,21	61,62
0,500	1,00	6,90	2,93	58,69
0,355	1,49	14,25	6,05	52,64
0,250	2,00	57,02	24,21	28,43
0,180	2,47	53,93	22,90	5,53
0,125	3,00	12,01	5,10	0,43
0,090	3,47	0,40	0,17	0,26
0,075	3,74	0,01	0,00	0,25
0,063	3,99	0,01	0,00	0,25
< 0,063	> 3,99	0,59	0,25	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

Size Class	Weight %
Silt and clay (< 0,063 mm)	0,25
Sand, fine (0,063 mm - 0,200 mm)	11,82
Sand, medium (0,2 mm - 0,6 mm)	48,01
Sand, coarse (0,6 mm - 2 mm)	8,98
Gravel (> 2 mm)	30,93
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	φ
Amount in sieve	Amount passing		
5%	95%	-----	-----
16%	84%	6,79	-2,76
25%	75%	3,47	-1,79
40%	60%	0,59	0,75
Median 50%	50%	0,34	1,54
75%	25%	0,24	2,06
84%	16%	0,21	2,24
90%	10%	0,19	2,37
95%	5%	0,17	2,52

## Moments Statistics

Mean	0,34
Sorting	-----
Skewness	-----
Kurtosis	-----
Uniformity Coefficient	3,07

The analysis is executed according to DS405.9 DS/EN933-1 extended by sieves to the 1/2 phi scale.

Size Classes and Percentiles are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

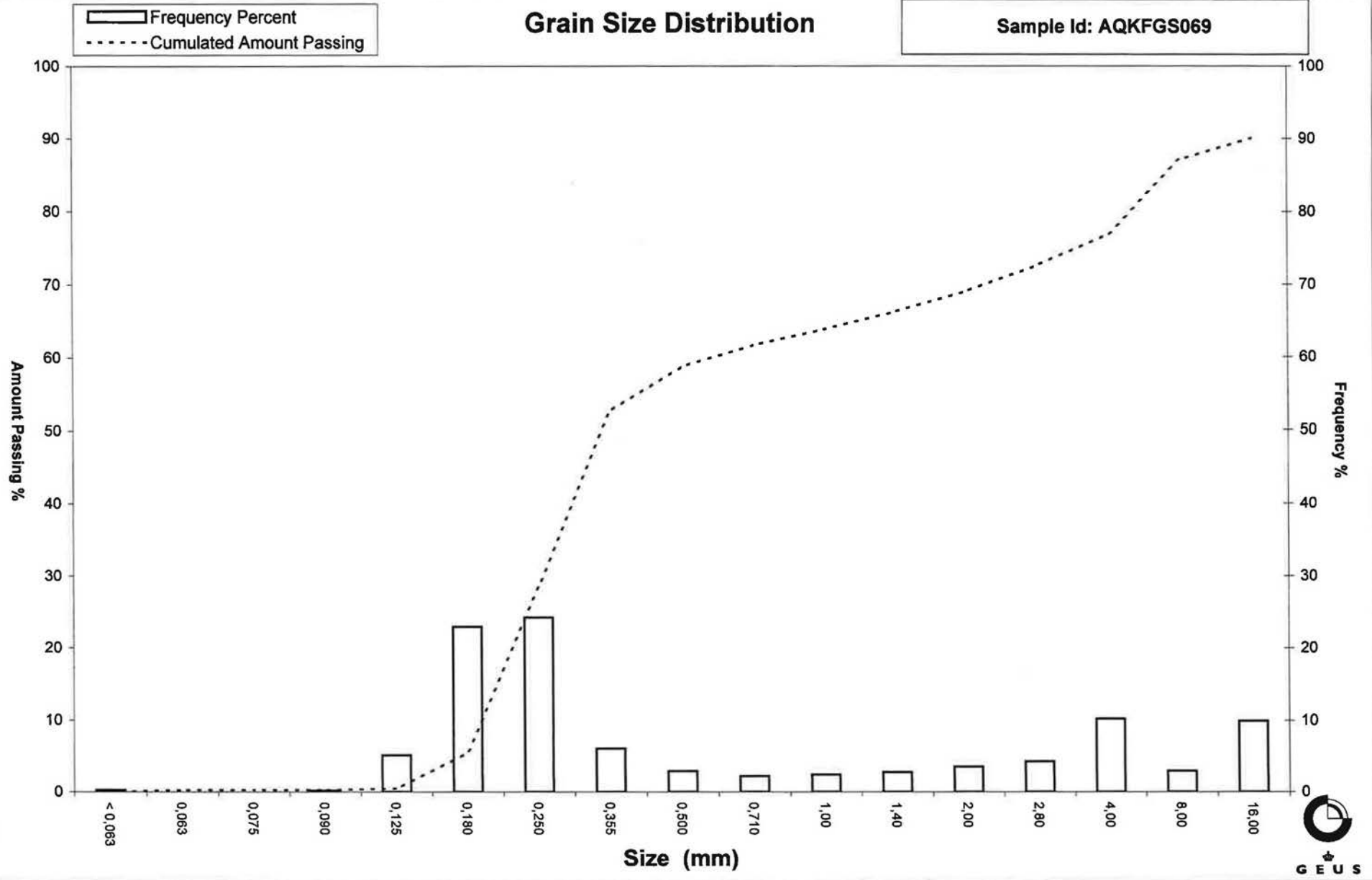
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS069



# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS070  
**Lab. Id:** KF 70  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 8 mm.



**Total Weight** 207,89 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	7,09	3,41	96,59
4,00	-2,00	5,95	2,86	93,73
2,80	-1,49	2,58	1,24	92,49
2,00	-1,00	4,01	1,93	90,56
1,40	-0,49	12,06	5,80	84,76
1,00	0,00	43,54	20,94	63,81
0,710	0,49	63,41	30,50	33,31
0,500	1,00	43,18	20,77	12,54
0,355	1,49	7,60	3,66	8,88
0,250	2,00	3,78	1,82	7,07
0,180	2,47	4,99	2,40	4,67
0,125	3,00	5,87	2,82	1,84
0,090	3,47	1,91	0,92	0,92
0,075	3,74	0,34	0,16	0,76
0,063	3,99	0,20	0,10	0,66
< 0,063	> 3,99	1,38	0,66	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

Size Class	Weight %
Silt and clay (< 0,063 mm)	0,66
Sand, fine (0,063 mm - 0,200 mm)	4,69
Sand, medium (0,2 mm - 0,6 mm)	17,08
Sand, coarse (0,6 mm - 2 mm)	68,13
Gravel (> 2 mm)	9,44
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	5,78	-2,53
16%	84%	1,39	-0,47
25%	75%	1,21	-0,28
40%	60%	0,96	0,05
Median 50%	50%	0,87	0,20
75%	25%	0,63	0,68
84%	16%	0,53	0,90
90%	10%	0,40	1,32
95%	5%	0,19	2,40

## Moments Statistics

Mean	0,21
Sorting	1,09
Skewness	-0,05
Kurtosis	2,11
Uniformity Coefficient	2,41

The analysis is executed according to DS405.9 DS/EN933-1 extended by sieves to the ½ phi scale.

Size Classes and Percentiles are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

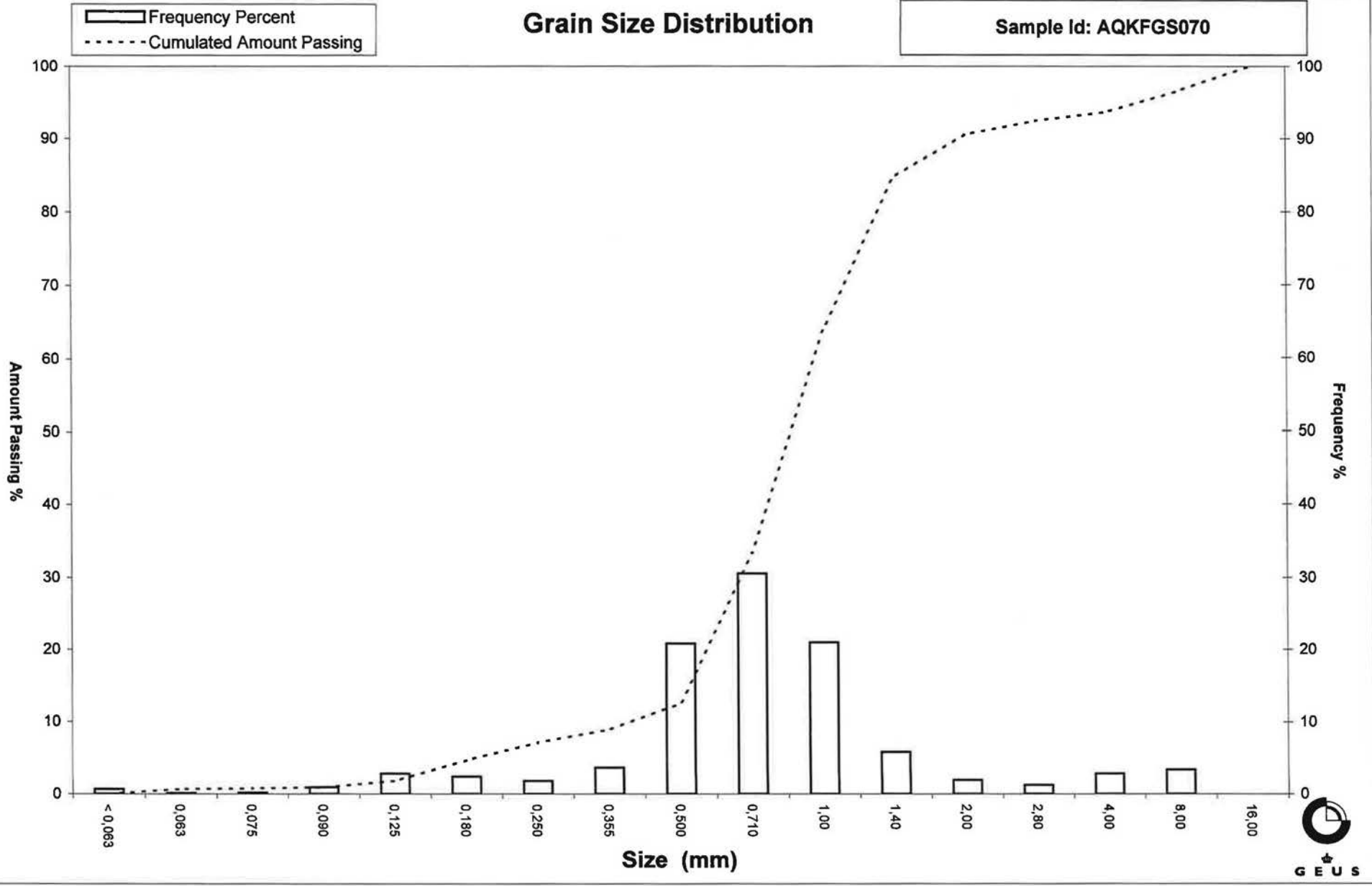
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS070



# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS072  
**Lab. Id:** KF 72  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 100,84 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount passing
mm	Φ	g	%	%
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,11	0,11	99,89
2,00	-1,00	0,05	0,05	99,84
1,40	-0,49	0,03	0,03	99,81
1,00	0,00	0,14	0,14	99,67
0,710	0,49	0,68	0,67	99,00
0,500	1,00	3,08	3,05	95,94
0,355	1,49	17,53	17,38	78,56
0,250	2,00	34,85	34,56	44,00
0,180	2,47	22,66	22,47	21,53
0,125	3,00	20,39	20,22	1,31
0,090	3,47	1,01	1,00	0,31
0,075	3,74	0,02	0,02	0,29
0,063	3,99	0,00	0,00	0,29
< 0,063	> 3,99	0,29	0,29	0,00

Sieve Analysis

Gravel

Sand

## Size Classes (DGF-Bulletin 1 1988)

	Weight %
Silt and clay (< 0,063 mm):	0,29
Sand, fine (0,063 mm - 0,200 mm):	27,66
Sand, medium (0,2 mm - 0,6 mm):	69,45
Sand, coarse (0,6 mm - 2 mm):	2,44
Gravel (> 2 mm):	0,16
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,49	1,02
16%	84%	0,40	1,32
25%	75%	0,34	1,54
40%	60%	0,30	1,74
Median 50%	50%	0,27	1,90
75%	25%	0,19	2,39
84%	16%	0,16	2,60
90%	10%	0,15	2,75
95%	5%	0,14	2,89

## Moments Statistics

Mean	1,94
Sorting	0,60
Skewness	0,08
Kurtosis	0,90
Uniformity Coefficient	2,01

The analysis is executed according to DS405.9 DS/EN933-1 extended by sieves to the ½ phi scale.

Size Classes and Percentiles are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

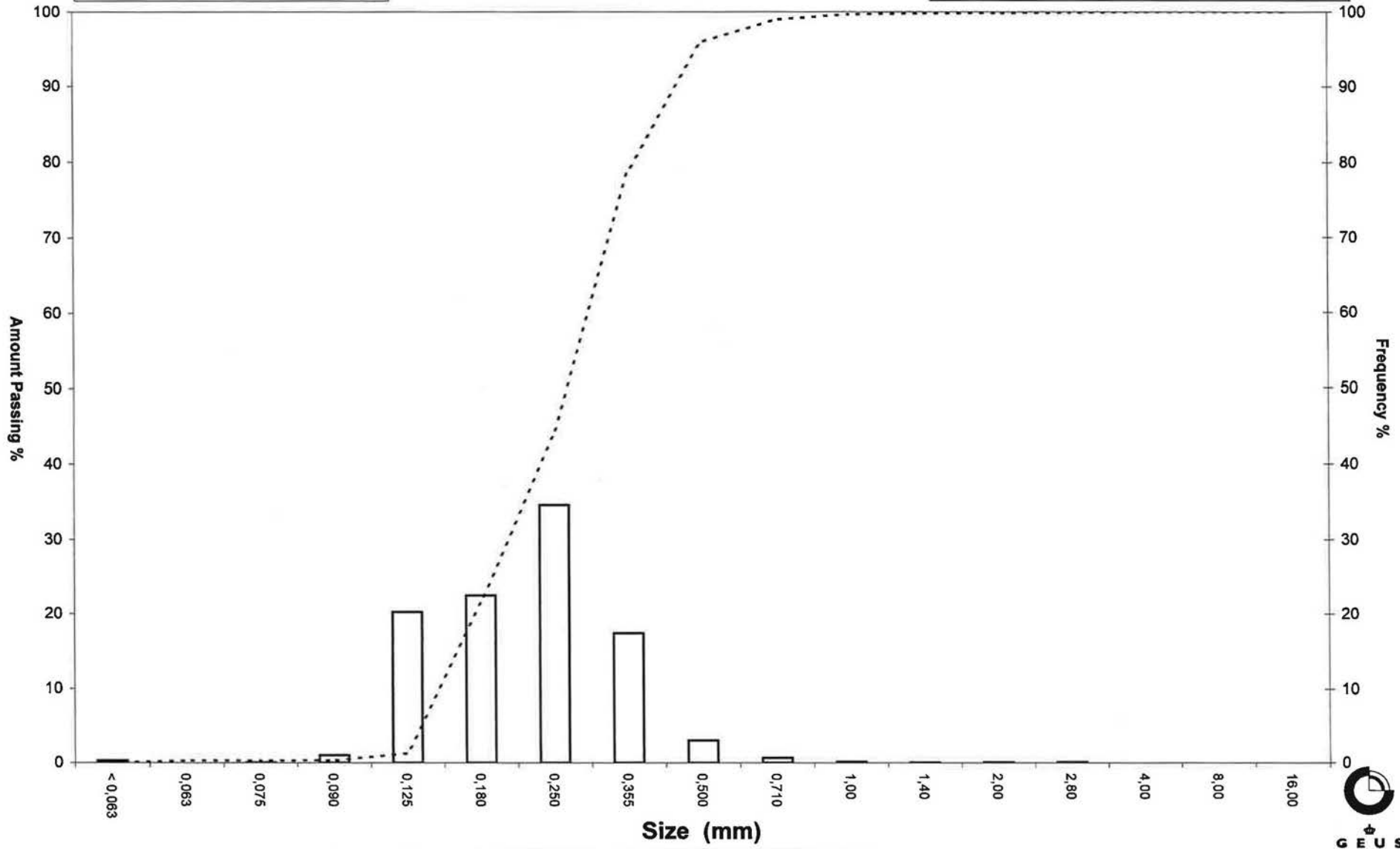
Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS072





# Grain Size Distribution

Geotechnical

**Sample Id:** AQKFGS073  
**Lab. Id:** KF 73  
**Submitter:** Energinet.dk  
**Subject:** KRIGERS FLAK Grab Samples  
**Date:** November 2012  
**Executed:** I. Nørgaard, A.Stoican  
**Remarks:** For mat. < 2 mm.



**Total Weight** 105,39 g

## Size Fractions

Size	Size	Weight	Weight	Cumulated amount
mm	Φ	g	%	amount passing %
16,00	-4,00	0,00	0,00	100,00
8,00	-3,00	0,00	0,00	100,00
4,00	-2,00	0,00	0,00	100,00
2,80	-1,49	0,09	0,09	99,91
2,00	-1,00	0,17	0,16	99,75
1,40	-0,49	0,18	0,17	99,58
1,00	0,00	0,73	0,69	98,89
0,710	0,49	1,80	1,71	97,18
0,500	1,00	7,08	6,72	90,46
0,355	1,49	22,83	21,66	68,80
0,250	2,00	46,15	43,79	25,01
0,180	2,47	22,52	21,37	3,64
0,125	3,00	3,49	3,31	0,33
0,090	3,47	0,09	0,09	0,25
0,075	3,74	0,01	0,01	0,24
0,063	3,99	0,00	0,00	0,24
< 0,063	> 3,99	0,25	0,24	0,00

## Size Classes (DGF-Bulletin 1 1988)

Size Class	Weight %
Silt and clay (< 0,063 mm):	0,24
Sand, fine (0,063 mm - 0,200 mm):	9,51
Sand, medium (0,2 mm - 0,6 mm):	83,91
Sand, coarse (0,6 mm - 2 mm):	6,09
Gravel (> 2 mm):	0,25
<b>Sum:</b>	<b>100,00</b>

## Moments Measures (Folk and Wards)

Percentile	Percentile	d(mm)	Φ
Amount in sieve	Amount passing		
5%	95%	0,64	0,64
16%	84%	0,46	1,13
25%	75%	0,40	1,33
40%	60%	0,33	1,58
Median 50%	50%	0,31	1,69
75%	25%	0,25	2,00
84%	16%	0,22	2,18
90%	10%	0,20	2,32
95%	5%	0,18	2,44

## Moments Statistics

Mean	1,67
Sorting	0,54
Skewness	-0,12
Kurtosis	1,11
Uniformity Coefficient	1,66

The analysis is executed according to DS405.9 DS/EN933-1 extended by sieves to the 1/2 phi scale.

Size Classes and Percentiles are found by linear interpolation

## Formulas

Mean  $(\phi_{16\%} + \phi_{84\%} + \phi_{50\%}) / 3$  (Folk and Ward 1957)

Sorting  $(\phi_{84\%} - \phi_{16\%}) / 4 + (\phi_{95\%} - \phi_{5\%}) / 6,6$  (Folk and Ward 1957)

Kurtosis  $(\phi_{95\%} - \phi_{5\%}) / (2,44 * (\phi_{75\%} - \phi_{25\%}))$  (Folk and Ward 1957)

Skewness  $(\phi_{16\%} + \phi_{84\%} - 2 * \phi_{50\%}) / (2 * (\phi_{84\%} - \phi_{16\%})) + (\phi_{5\%} + \phi_{95\%} - 2 * \phi_{50\%}) / (2 * (\phi_{95\%} - \phi_{5\%}))$  (Folk and Ward 1957)

Uniformity Coefficient  $(d_{60\%} / d_{10\%})$  (dgf-Bulletin 1988)

Mean, sorting, skewness and kurtosis are based on "Amount in sieve". Uniformity coefficient is based on "Amount passing".

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# Grain Size Distribution

Sample Id: AQKFGS073

