

User:  
VAS Uni-Korn  
Project:

SGS INSTITUT FRESENIUS GmbH  
Grain size distribution data and coefficients  
4332000 / Lindane dump

Print date 27.10.2017 - 18:13

Sample: 171134676 / SKS-L-UNDIST-4

#### Screening of sample

Grain size [mm]	Mass of Residuals [g]	Sieve residue [Wt.-%]	Sum of Screen underflow [Wt.-%]
125	-	-	-
63	-	-	-
31,5	-	-	-
16	-	-	100,00
8	6,14	1,39	98,61
4	6,2	1,40	97,21
2	5,0	1,13	96,08
1	5,48	1,24	94,84
0,5	6,35	1,44	93,40
0,25	13,02	2,95	90,45
0,125	62,29	14,10	76,36
0,063	54,74	12,39	63,97
< 0,063	282,7	63,97	-

Tot. dry mass: 441,92 g  
Sum: 441,92 g  
Loss of screening:  
Type of screening: wet

#### Determination of grain size distribution by hydrometer

Dry mass: 40,87 g

Dispersion medium: 0,5g Natriumpyrophosphat

Grain density: 2,670 g/cm<sup>3</sup>

Hydrometer correction: 1,4 g/cm<sup>3</sup>

Time	Elapsed time to reading [h:min:s]	R' [g/cm <sup>3</sup> ]	R=R'+C <sub>m</sub> [g/cm <sup>3</sup> ]	d [mm]	T [°C]	C <sub>T</sub> [g/cm <sup>3</sup> ]	R+C <sub>T</sub> [g/cm <sup>3</sup> ]	a [Gew.-%]	a <sub>tot</sub> [Wt. %]
	00:00:30	23,5	24,9	0,0628	21,6	0,32	25,2	98,6	63,1
	00:01:00	23,0	24,4	0,0448	21,6	0,32	24,7	96,7	61,9
	00:02:00	21,5	22,9	0,0326	21,6	0,32	23,2	90,8	58,1
	00:05:00	19,0	20,4	0,0215	21,6	0,32	20,7	81,0	51,8
	00:15:00	13,5	14,9	0,0134	21,6	0,32	15,2	59,5	38,1
	00:45:00	1,5	2,9	0,0089	21,9	0,38	3,3	12,8	8,2
	02:00:00	0,0	1,4	0,0055	22,4	0,48	1,9	7,5	4,8
	06:00:00	0,0	1,4	0,0032	22,4	0,48	1,9	7,4	4,8
	24:00:00	0,0	1,4	0,0016	22,4	0,48	1,9	7,4	4,7

#### Coefficients

Soil type: Silt, fine sand (23%), medium sand (7%)  
Abbreviation: U, fs, ms'  
Soil group:  
Class of frost susceptibility: (n.d.)  
Compactability: (n.d.)  
U (Uniformity coefficient): 4,1  
C (Coefficient of gradation): 0,4

Component	[Wt. %]
T	4,71
U	59,26
S	32,11
G	3,92

Gravel packing (a. Bieske, 1961): 1 - 2 mm  
Width of screen slots (a. Bieske, 1961): n.b.

Kf after Beyer, 1964 (d<sub>10</sub> ≤ 0.06)  
Kf after Hazen, 1893 (d<sub>10</sub> to small)  
Kf after Zieschang, 1964 (d<sub>10</sub> < 0.1)  
Kf after Seelheim, 1880 1,36 E-05 (m/s)  
Kf after Mallet & Pacquant, 1954 <sup>1</sup> 1,03 E-07 (m/s)  
Kf after Mallet & Pacquant, 1954 <sup>2</sup> 1,21 E-07 (m/s)