



Geolab Wiertsema B.V.
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Internet: www.geolabwiertsema.com

Opdrachtgever: Raadgevend Ingenieursbureau Wiertsema & Partners B.V.
Onderwerp: Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
Projectnummer: VN-85064-1
Nr. opdrachtgever: 13954568

Geachte mevrouw van der Draaij,

Hierbij ontvangt u de resultaten van het laboratoriumonderzoek van bovengenoemd project. Het onderzoek is uitgevoerd conform uw opdracht. Voor informatie omtrent onze werkmethodes en de beschrijving van de proeven, verwijzen we naar onze website.

Voor vragen of opmerkingen kunt u contact opnemen met ondergetekende.

Versie	Datum	Omschrijving wijziging
1	27 oktober 2023	
2	10 november 2023	Excel kental d16 en d84 toegevoegd
3	15 november 2023	Toevoeging 2.8 mm zeef

Rapportnummer:	R92610
Status:	Definitief
Datum:	15 november 2023
Opgesteld door:	J.W. van der Kaap
Handtekening:	<p>i.o.</p> 

Resultaten laboratoriumonderzoek

Acceptatie grondmonsters

De aangeleverde monsters zijn bij binnenkomst gecontroleerd op visuele beschadigingen en op de juiste wijze van codering (monsternummer, diepte etc.). De monsters zijn vervolgens geconditioneerd opgeslagen tot uitvoering van de laboratoriumproeven. Na oplevering van het rapport worden nog beschikbare monsters/rest monsters twee maanden bewaard, hierna worden ze afgevoerd.

Uitgevoerde proeven en gehanteerde normen

Aantal	Uitgevoerde proef	Norm	Link website
48	Korrelgrootteverdeling nat (63 µm- 2 mm, inclusief < 63 µm) op basis van de droge stof	NEN-EN-ISO 17892-4	Korrelgrootteverdeling

Kwaliteitswaarborging

Het laboratoriumonderzoek is verricht onder ons kwaliteitssysteem NEN-EN-ISO-9001 en ons milieumanagementsysteem NEN-EN-ISO-14001. Geolab Wiertsema B.V. is in het bezit van een V&G-beheersysteem VCA** en Veiligheidsladder trede 3.

Afwijkingen/aanpassingen ten opzichte van de proefuitvoering

Tijdens de uitvoering van de werkzaamheden zijn er geen afwijkingen geconstateerd.

Bijlagen:

- L1. Korrelgrootteverdelingen nat (63 µm- 2 mm, inclusief < 63 µm) op basis van de droge stof
- L2. Excel kental d16 en d84



Bijlage L1

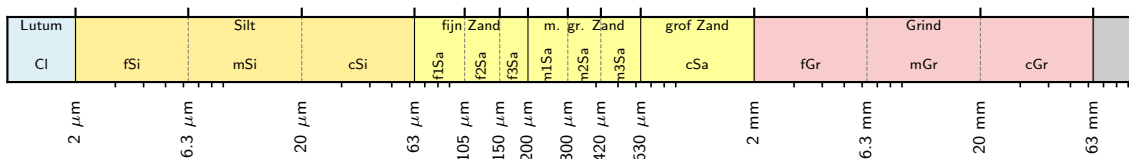
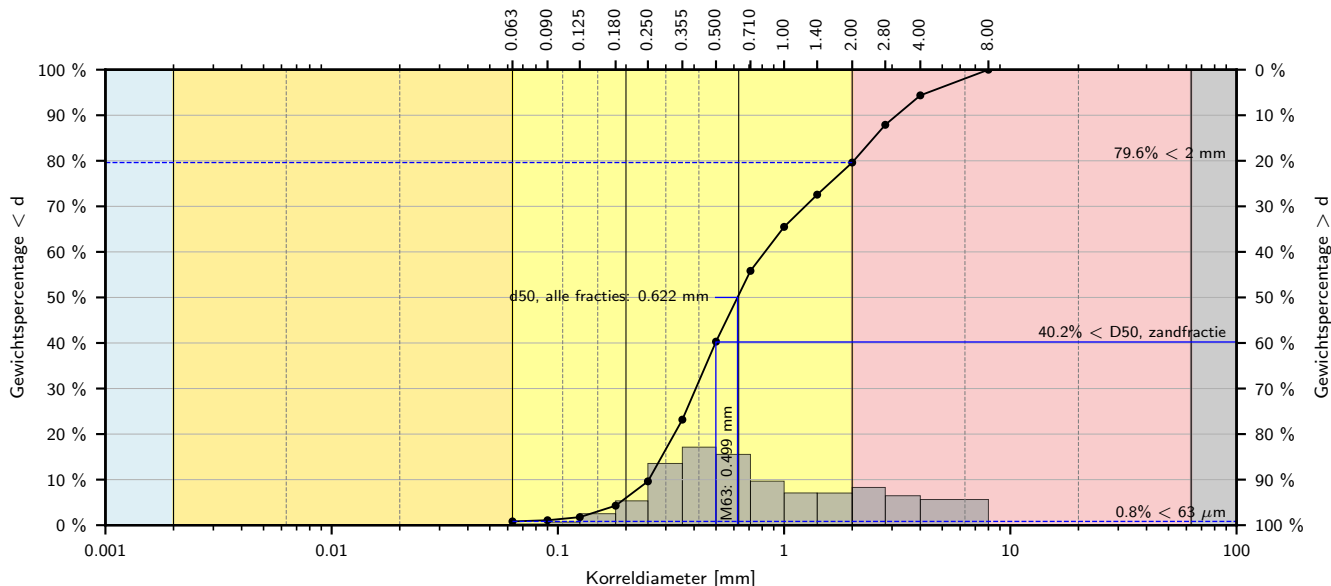



Geolab Wiertsema


Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B01 (13954568-001)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1C14-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld
 van +0.00 tot -1.00 m. Maaiveld
 Laborant DW
 Beproevingdatum 20-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling	
d [mm]	% < d
8.0	100.00
4.0	94.36
2.8	87.90
<hr/>	
2.000	79.62
1.400	72.56
1.000	65.49
0.710	55.83
0.500	40.29
0.355	23.17
0.250	9.62
0.180	4.28
0.125	1.76
0.090	1.08
<hr/>	
Fijne delen 0.063	0.83

gehele verdeling		
Kental		Waarde
d10	[mm]	0.252
d15	[mm]	0.287
d20	[mm]	0.327
d30	[mm]	0.407
d40	[mm]	0.497
d50	[mm]	0.622
d60	[mm]	0.823
d70	[mm]	1.239
d80	[mm]	2.031
d85	[mm]	2.489
d90	[mm]	3.144
Cu	[-]	3.260
Cc	[-]	0.797
d90/d10	[-]	12.454

zandfractie		
Kental		Waarde
D10	[mm]	0.236
D15	[mm]	0.270
D20	[mm]	0.299
D30	[mm]	0.364
D40	[mm]	0.426
D50	[mm]	0.499
D60	[mm]	0.596
D70	[mm]	0.714
D80	[mm]	0.944
D85	[mm]	1.116
D90	[mm]	1.346
Cu _{zand}	[-]	2.524
Cc _{zand}	[-]	0.942
D90/D10	[-]	5.696

Karakteristieken		
Grind (2 - 63 mm)	[%]	20.4
Zand (63 μm - 2 mm)	[%]	78.8
Fijne delen (< 63 μm)	[%]	0.8
M ₆₃ Zandmediaan (M _z)	[mm]	0.499
middelgrof (420 μm - 630 μm)		
M ₂₀₀₀ Grindmediaan (M _g)	[mm]	3.11
M ₅₀	[mm]	-
U ₁₆ (16 μm - 2 mm)	[-]	-
U _{Zand} (63 μm - 2 mm)	[mm]	23.68
U-cijfer volgens formule van Zunker		
F _m Fijnheidsmodulus	[-]	3.088



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)

Korrelgrootteverdeling (NEN-EN-ISO 17892-4(2016))

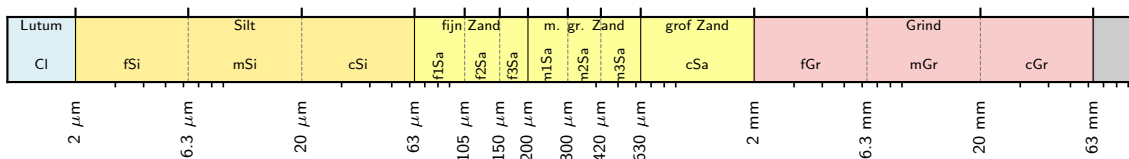
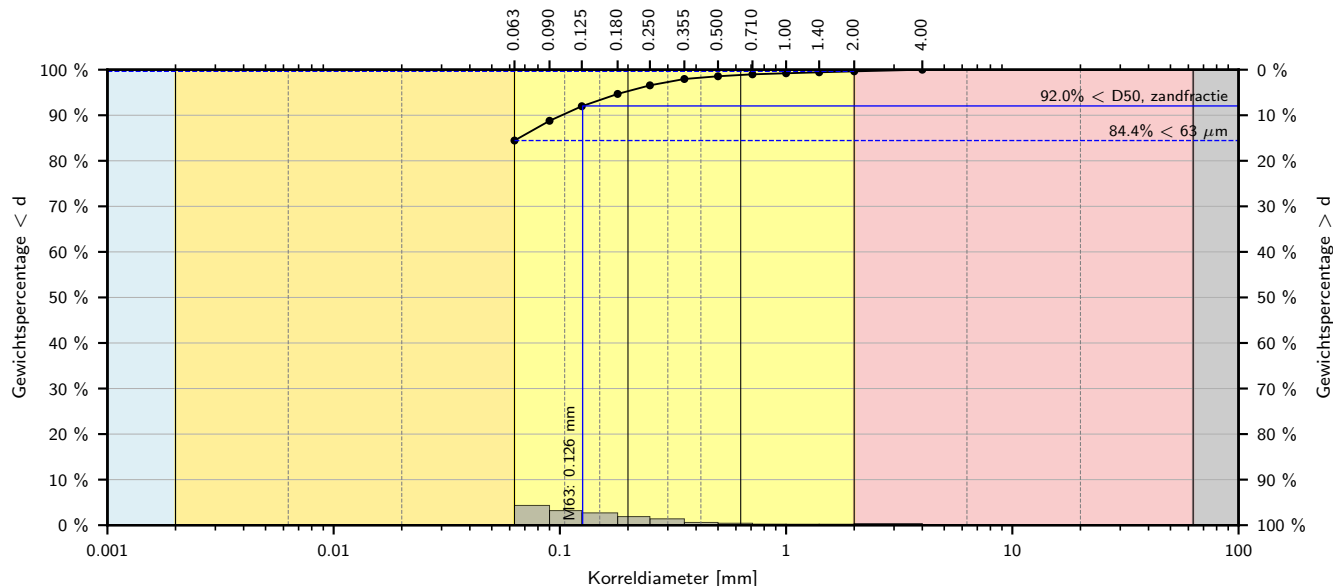
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Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B02 (13954568-002)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1C17-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld
 van +0.00 tot -1.00 m. Maaiveld
 Laborant DW
 Beproevingsdatum 23-10-2023
 Grondsoort KLEI



Korrelgrootteverdeling		gehele verdeling		zandfractie		Karakteristieken	
d [mm]	% < d	Kental	Waarde	Kental	Waarde		
Grind 4.0	100.00	d10 [mm]	-	D10 [mm]	0.071	Grind (2 - 63 mm)	[%] 0.4
2.000	99.64	d15 [mm]	-	D15 [mm]	0.076	Zand (63 μm - 2 mm)	[%] 15.2
1.400	99.43	d20 [mm]	-	D20 [mm]	0.081	Fijne delen (< 63 μm)	[%] 84.5
1.000	99.22	d30 [mm]	-	D30 [mm]	0.092	M ₆₃ Zandmediaan (M _z)	[mm] 0.126
0.710	98.98	d40 [mm]	-	D40 [mm]	0.108	fijn (105 μm - 150 μm)	
Zand 0.500	98.56	d50 [mm]	-	D50 [mm]	0.126	M ₂₀₀₀ Grindmediaan (M _g)	[mm] 2.83
0.355	97.96	d60 [mm]	-	D60 [mm]	0.155	M ₅₀	[mm] -
0.250	96.57	d70 [mm]	-	D70 [mm]	0.193	U ₁₆ (16 μm - 2 mm)	[-] -
0.180	94.68	d80 [mm]	-	D80 [mm]	0.252	U _{Zand} (63 μm - 2 mm)	[mm] 80.70
0.125	91.98	d85 [mm]	0.066	D85 [mm]	0.306	U-cijfer volgens formule van Zunker	
0.090	88.78	d90 [mm]	0.102	D90 [mm]	0.390	F _m Fijnheidsmodulus	[-] 0.140
Fijne delen 0.063	84.45	Cu [-]	-	Cu _{zand} [-]	2.168		
		Cc [-]	-	Cc _{zand} [-]	0.768		
		d90/d10 [-]	-	D90/D10 [-]	5.459		



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Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)

Korrelgrootteverdeling (NEN-EN-ISO 17892-4(2016))

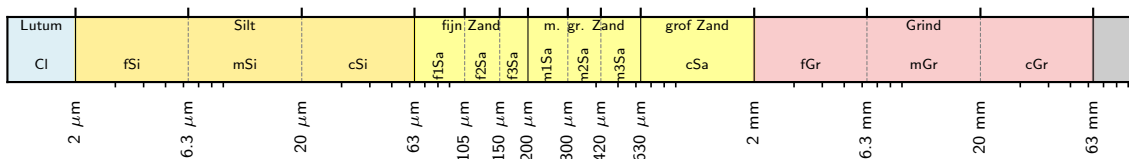
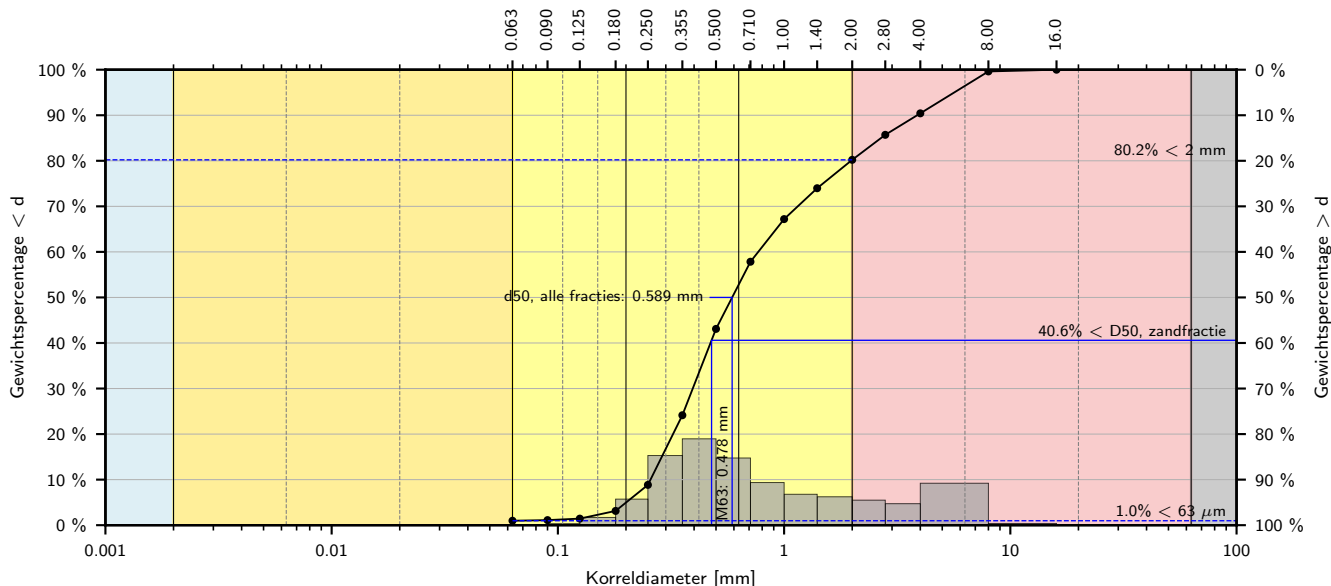
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Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B04 (13954568-004)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1C3-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld
 van +0.00 tot -1.00 m. Maaiveld
 Laborant DW
 Beproeingsdatum 23-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling		gehele verdeling		zandfractie		Karakteristieken	
d [mm]	% < d	Kental	Waarde	Kental	Waarde		
16.0	100.00	d10	[mm] 0.257	D10	[mm] 0.250	Grind (2 - 63 mm)	[%] 19.8
8.0	99.62	d15	[mm] 0.288	D15	[mm] 0.274	Zand (63 μm - 2 mm)	[%] 79.2
4.0	90.42	d20	[mm] 0.323	D20	[mm] 0.300	Fijne delen (< 63 μm)	[%] 1.0
2.8	85.70	d30	[mm] 0.395	D30	[mm] 0.359	M ₆₃ Zandmediaan (M _z)	[mm] 0.478
2.000	80.21	d40	[mm] 0.473	D40	[mm] 0.414	middelgrof (420 μm - 630 μm)	
1.400	73.98	d50	[mm] 0.589	D50	[mm] 0.478	M ₂₀₀₀ Grindmediaan (M _g)	[mm] 3.91
1.000	67.20	d60	[mm] 0.768	D60	[mm] 0.569	M ₅₀	[mm] -
0.710	57.84	d70	[mm] 1.149	D70	[mm] 0.687	U ₁₆ (16 μm - 2 mm)	[-] -
0.500	43.09	d80	[mm] 1.976	D80	[mm] 0.901	U _{Zand} (63 μm - 2 mm)	[mm] 23.43
0.355	24.14	d85	[mm] 2.682	D85	[mm] 1.058	U-cijfer volgens formule van Zunker	
0.250	8.85	d90	[mm] 3.875	D90	[mm] 1.287	F _m Fijnheidsmodulus	[-] 3.093
0.180	3.13	Cu	[-] 2.993	Cu _{zand}	[-] 2.273		
0.125	1.44	Cc	[-] 0.790	Cc _{zand}	[-] 0.905		
0.090	1.11	d90/d10	[-] 15.097	D90/D10	[-] 5.143		
Fijne delen 0.063	0.97						



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Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)

Korrelgrootteverdeling (NEN-EN-ISO 17892-4(2016))

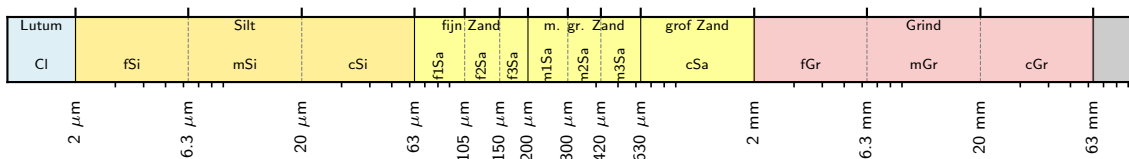
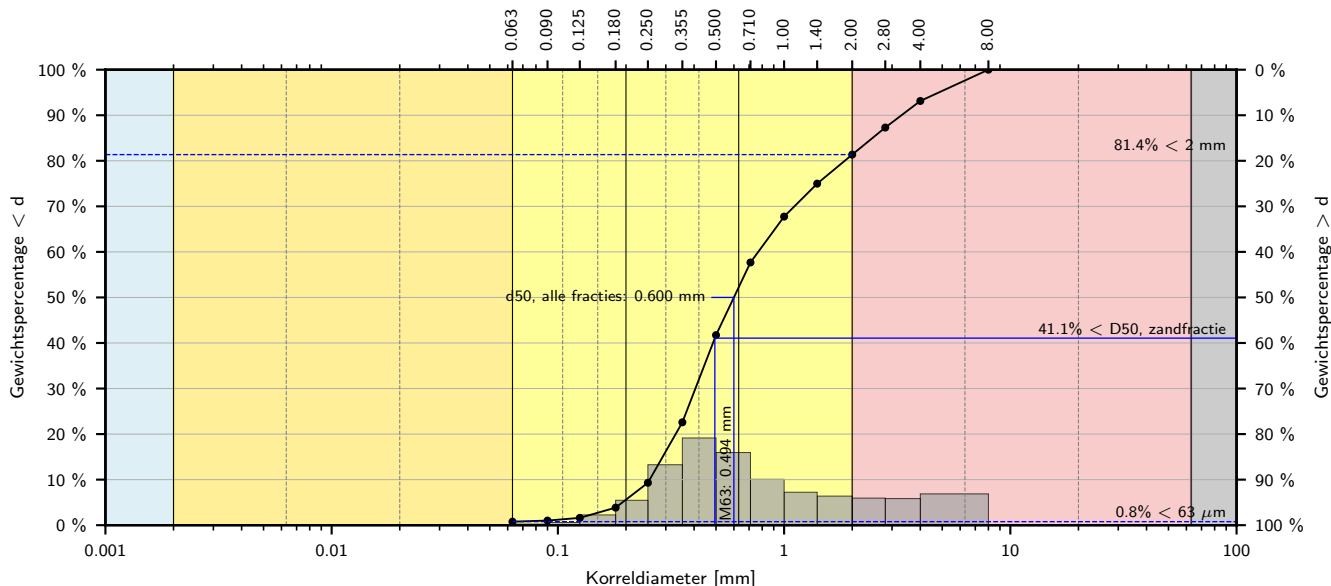
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Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B05 (13954568-005)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1C19-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld
 van +0.00 tot -1.00 m. Maaiveld
 Laborant TR
 Beproevingdatum 20-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling		gehele verdeling		zandfractie		Karakteristieken	
d [mm]	% < d	Kental	Waarde	Kental	Waarde		
8.0	100.00	d10	[mm] 0.255	D10	[mm] 0.243	Grind (2 - 63 mm)	[%] 18.6
4.0	93.14	d15	[mm] 0.291	D15	[mm] 0.275	Zand (63 μm - 2 mm)	[%] 80.6
2.8	87.30	d20	[mm] 0.332	D20	[mm] 0.305	Fijne delen (< 63 μm)	[%] 0.8
2.000	81.36	d30	[mm] 0.405	D30	[mm] 0.370	M ₆₃ Zandmediaan (M _z)	[mm] 0.494
1.400	74.98	d40	[mm] 0.485	D40	[mm] 0.428	middelgrof (420 μm - 630 μm)	
1.000	67.75	d50	[mm] 0.600	D50	[mm] 0.494	M ₂₀₀₀ Grindmediaan	[mm] 3.44
0.710	57.68	d60	[mm] 0.768	D60	[mm] 0.588	(M _g)	
0.500	41.73	d70	[mm] 1.110	D70	[mm] 0.702	M ₅₀	[mm] -
0.355	22.58	d80	[mm] 1.854	D80	[mm] 0.918	U ₁₆ (16 μm - 2 mm)	[-] -
0.250	9.32	d85	[mm] 2.458	D85	[mm] 1.073	U _{Zand} (63 μm - 2 mm)	[mm] 23.46
0.180	3.85	d90	[mm] 3.302	D90	[mm] 1.295	U-cijfer volgens formule van Zunker	
0.125	1.60	Cu	[-] 3.018	Cu _{zand}	[-] 2.423	F _m Fijnheidsmodulus	
0.090	1.01	Cc	[-] 0.840	Cc _{zand}	[-] 0.960	[-] 3.052	
Fijne delen 0.063	0.77	d90/d10	[-] 12.973	D90/D10	[-] 5.332		



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)

Korrelgrootteverdeling (NEN-EN-ISO 17892-4(2016))

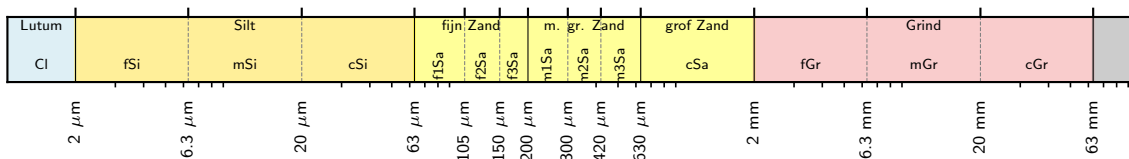
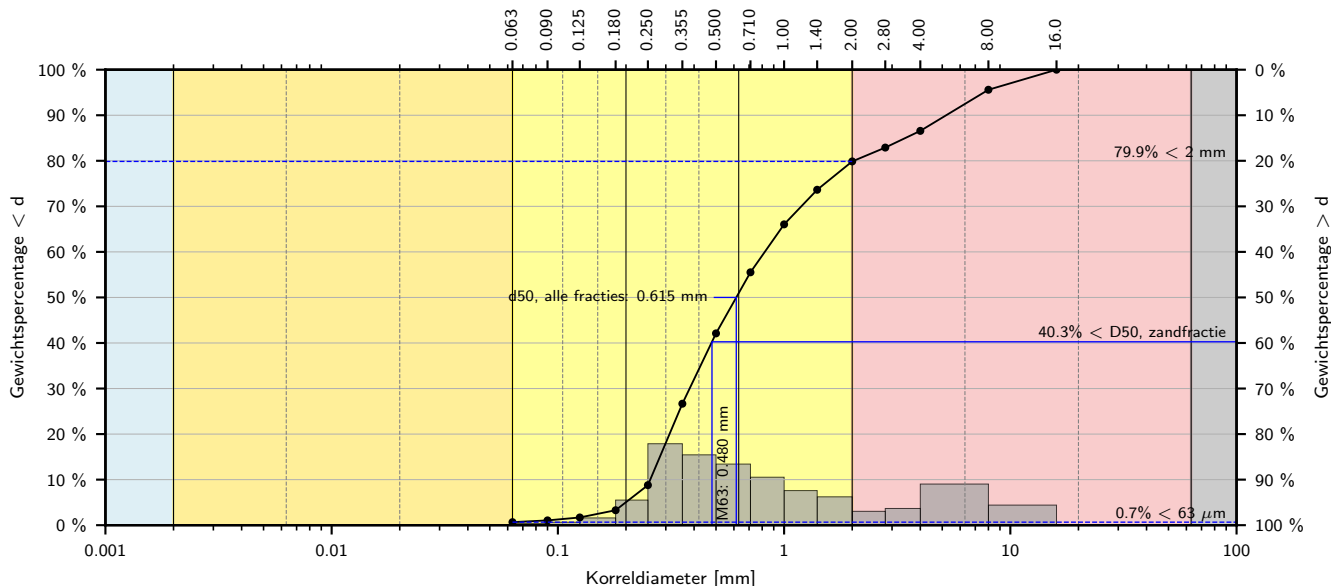
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Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B06 (13954568-006)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1C4-x1
 Diepte van 0.00 tot 1.00 m. -maaveld
 van +0.00 tot -1.00 m. Maaveld
 Laborant TR
 Beproevingsdatum 20-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling		gehele verdeling		zandfractie		Karakteristieken	
d [mm]	% < d	Kental	Waarde	Kental	Waarde		
16.0	100.00	d10	[mm] 0.256	D10	[mm] 0.247	Grind (2 - 63 mm)	[%] 20.1
8.0	95.60	d15	[mm] 0.282	D15	[mm] 0.269	Zand (63 μm - 2 mm)	[%] 79.2
4.0	86.57	d20	[mm] 0.311	D20	[mm] 0.291	Fijne delen (< 63 μm)	[%] 0.7
2.8	82.90	d30	[mm] 0.382	D30	[mm] 0.340	M ₆₃ Zandmediaan (M _z)	[mm] 0.480
2.000	79.86	d40	[mm] 0.477	D40	[mm] 0.403	middelgrof (420 μm - 630 μm)	
1.400	73.64	d50	[mm] 0.615	D50	[mm] 0.480	M ₂₀₀₀ Grindmediaan	[mm] 5.18
1.000	66.05	d60	[mm] 0.821	D60	[mm] 0.586	(M _g)	
0.710	55.52	d70	[mm] 1.192	D70	[mm] 0.724	M ₅₀	[mm] -
0.500	42.11	d80	[mm] 2.031	D80	[mm] 0.936	U ₁₆ (16 μm - 2 mm)	[-] -
0.355	26.67	d85	[mm] 3.434	D85	[mm] 1.090	U _{Zand} (63 μm - 2 mm)	[mm] 24.05
0.250	8.79	d90	[mm] 5.205	D90	[mm] 1.299	U-cijfer volgens formule van Zunker	
0.180	3.28	Cu	[-] 3.209	Cu _{zand}	[-] 2.373	F _m Fijnheidsmodulus	[-] 3.193
0.125	1.69	Cc	[-] 0.695	Cc _{zand}	[-] 0.797		
0.090	1.05	d90/d10	[-] 20.332	D90/D10	[-] 5.259		
Fijne delen 0.063	0.66						



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Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)

Korrelgrootteverdeling (NEN-EN-ISO 17892-4(2016))

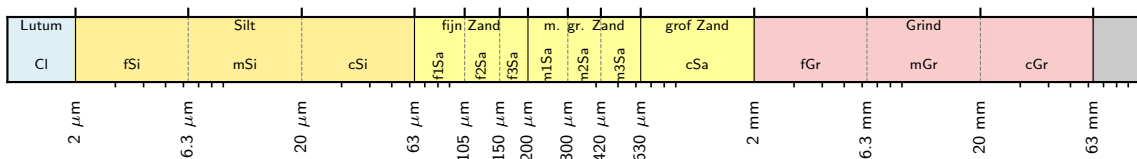
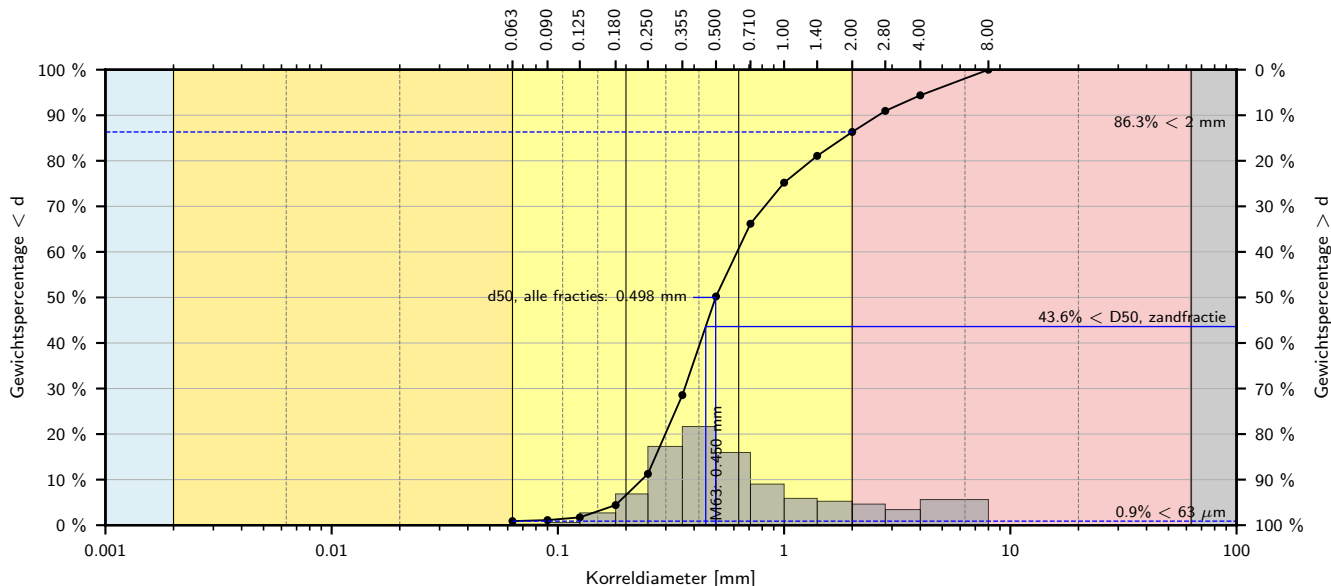
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Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B07 (13954568-007)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1C7-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld
 van +0.00 tot -1.00 m. Maaiveld
 Laborant TR
 Beproeingsdatum 20-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling	
d [mm]	% < d
8.0	100.00
4.0	94.38
2.8	90.95
<hr/>	
2.000	86.33
1.400	81.08
1.000	75.19
0.710	66.18
0.500	50.22
0.355	28.56
0.250	11.27
0.180	4.41
0.125	1.71
0.090	1.11
Fijne delen 0.063	0.89

gehele verdeling		
Kental		Waarde
d10	[mm]	0.235
d15	[mm]	0.270
d20	[mm]	0.298
d30	[mm]	0.363
d40	[mm]	0.425
d50	[mm]	0.498
d60	[mm]	0.620
d70	[mm]	0.821
d80	[mm]	1.316
d85	[mm]	1.827
d90	[mm]	2.613
Cu	[-]	2.635
Cc	[-]	0.904
d90/d10	[-]	11.104

zandfractie		
Kental		Waarde
D10	[mm]	0.229
D15	[mm]	0.263
D20	[mm]	0.286
D30	[mm]	0.341
D40	[mm]	0.393
D50	[mm]	0.450
D60	[mm]	0.522
D70	[mm]	0.629
D80	[mm]	0.798
D85	[mm]	0.938
D90	[mm]	1.160
Cu _{zand}	[-]	2.279
Cc _{zand}	[-]	0.971
D90/D10	[-]	5.064

Karakteristieken		
Grind (2 - 63 mm)	[%]	13.7
Zand (63 μm - 2 mm)	[%]	85.4
Fijne delen (< 63 μm)	[%]	0.9
M ₆₃ Zandmediaan (M _z)	[mm]	0.450
middelgrof (420 μm - 630 μm)		
M ₂₀₀₀ Grindmediaan (M _g)	[mm]	3.53
M ₅₀	[mm]	-
U ₁₆ (16 μm - 2 mm)	[-]	-
U _{Zand} (63 μm - 2 mm)	[mm]	25.17
U-cijfer volgens formule van Zunker		
F _m Fijnheidsmodulus	[-]	2.809



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer
31188389 (13954568)

Korrelgrootteverdeling
(NEN-EN-ISO 17892-4(2016))

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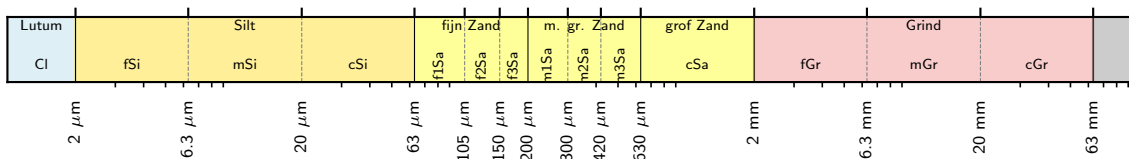
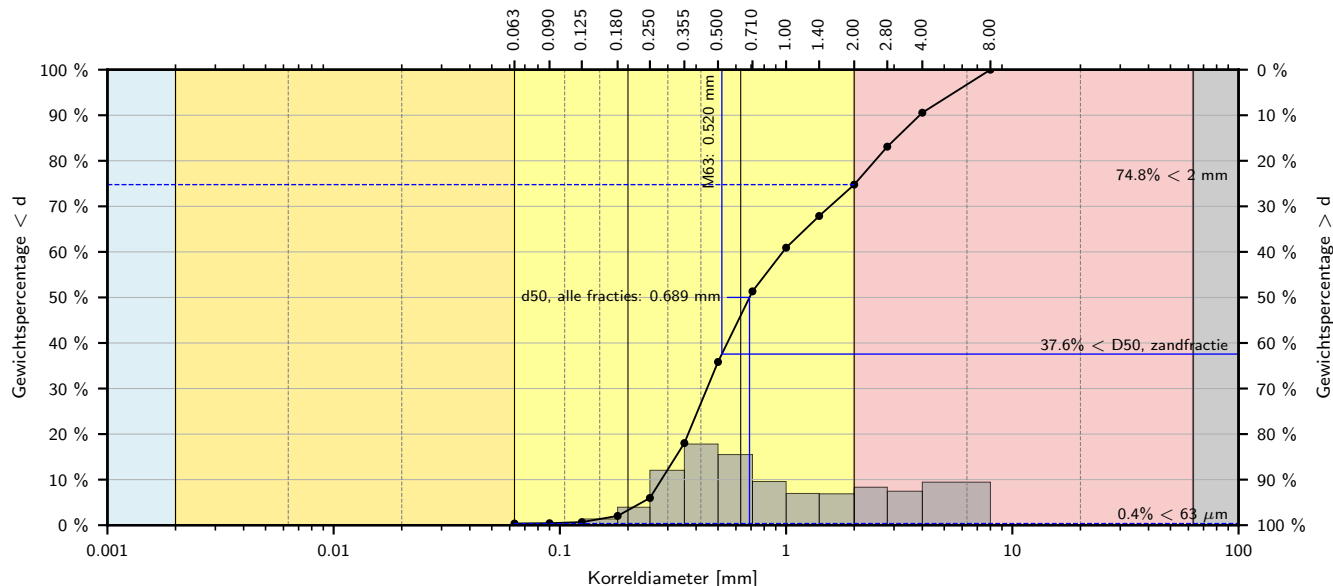


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Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B08 (13954568-008)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1C18-x1
 Diepte van 0.00 tot 1.00 m. -maaveld
 van +0.00 tot -1.00 m. Maaveld
 Laborant WK
 Beproevingsdatum 20-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling		gehele verdeling		zandfractie		Karakteristieken	
d [mm]	% < d	Kental	Waarde	Kental	Waarde		
8.0	100.00	d10	[mm] 0.281	D10	[mm] 0.264	Grind (2 - 63 mm)	[%] 25.2
4.0	90.55	d15	[mm] 0.325	D15	[mm] 0.294	Zand (63 μm - 2 mm)	[%] 74.4
2.8	83.10	d20	[mm] 0.369	D20	[mm] 0.327	Fijne delen (< 63 μm)	[%] 0.4
2.000	74.77	d30	[mm] 0.447	D30	[mm] 0.388	M ₆₃ Zandmediaan (M _z)	[mm] 0.520
1.400	67.88	d40	[mm] 0.549	D40	[mm] 0.448	middelgrof (420 μm - 630 μm)	
1.000	60.92	d50	[mm] 0.689	D50	[mm] 0.520	M ₂₀₀₀ Grindmediaan	[mm] 3.44
0.710	51.33	d60	[mm] 0.968	D60	[mm] 0.615	(M _g)	
0.500	35.83	d70	[mm] 1.562	D70	[mm] 0.739	M ₅₀	[mm] -
0.355	18.02	d80	[mm] 2.470	D80	[mm] 0.964	U ₁₆ (16 μm - 2 mm)	[-] -
0.250	5.97	d85	[mm] 3.066	D85	[mm] 1.139	U _{Zand} (63 μm - 2 mm)	[mm] 21.74
0.180	2.03	d90	[mm] 3.895	D90	[mm] 1.363	U-cijfer volgens formule van Zunker	
0.125	0.67	Cu	[-] 3.442	Cu _{zand}	[-] 2.333	F _m Fijnheidsmodulus	
0.090	0.43	Cc	[-] 0.734	Cc _{zand}	[-] 0.929	[-] 3.312	
Fijne delen 0.063	0.36	d90/d10	[-] 13.857	D90/D10	[-] 5.169		



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer
31188389 (13954568)

Korrelgrootteverdeling
(NEN-EN-ISO 17892-4(2016))

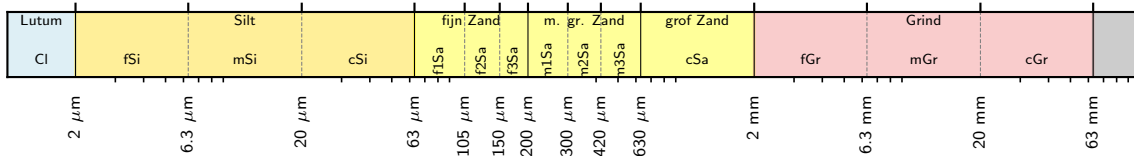
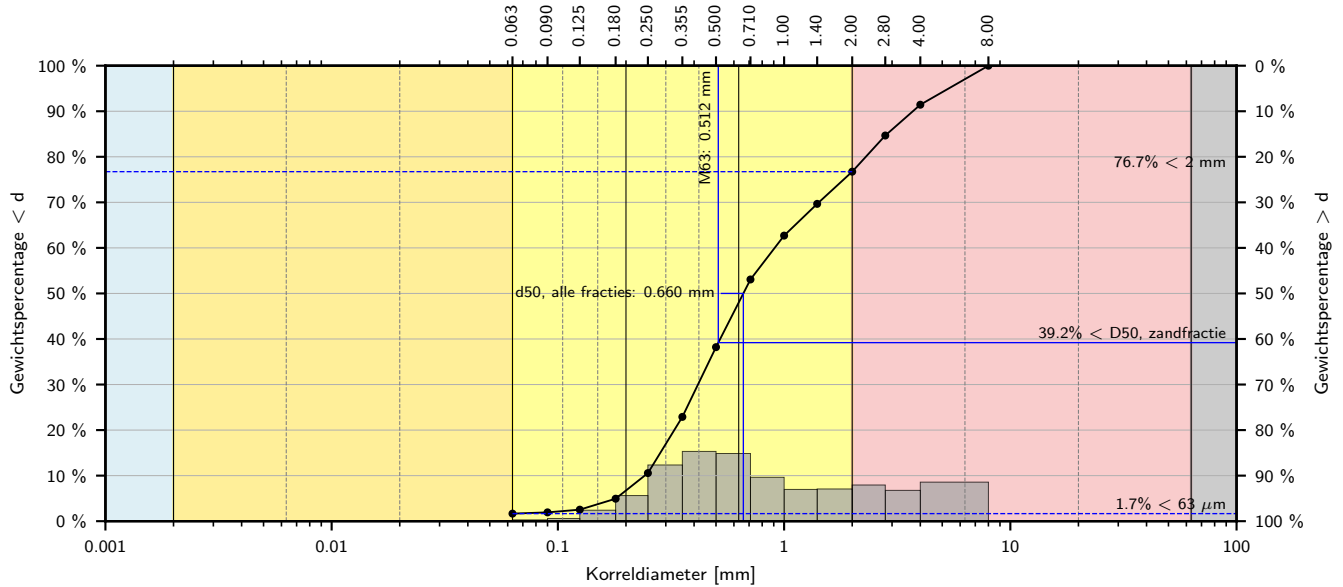
GEOLAB WIERTSEMA, TOLBERT



Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B09 (13954568-009)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1C2-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld
 van +0.00 tot -1.00 m. Maaiveld
 Laborant DW
 Beproevingdatum 23-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling		gehele verdeling		zandfractie		Karakteristieken	
d [mm]	% < d	Kental	Waarde	Kental	Waarde		
8.0	100.00	d10	[mm] 0.242	D10	[mm] 0.230	Grind (2 - 63 mm)	[%] 23.3
4.0	91.43	d15	[mm] 0.284	D15	[mm] 0.267	Zand (63 μm - 2 mm)	[%] 75.1
2.8	84.67	d20	[mm] 0.327	D20	[mm] 0.297	Fijne delen (< 63 μm)	[%] 1.7
2.000	76.73	d30	[mm] 0.416	D30	[mm] 0.365	M ₆₃ Zandmediaan (M _z)	[mm] 0.512
1.400	69.67	d40	[mm] 0.522	D40	[mm] 0.432	middelgrof (420 μm - 630 μm)	
1.000	62.70	d50	[mm] 0.660	D50	[mm] 0.512	M ₂₀₀₀ Grindmediaan	[mm] 3.40
0.710	53.07	d60	[mm] 0.909	D60	[mm] 0.611	(M _g)	
0.500	38.21	d70	[mm] 1.424	D70	[mm] 0.740	M ₅₀	[mm] -
0.355	22.89	d80	[mm] 2.297	D80	[mm] 0.966	U ₁₆ (16 μm - 2 mm)	[-] -
0.250	10.56	d85	[mm] 2.849	D85	[mm] 1.143	U _{Zand} (63 μm - 2 mm)	[mm] 23.57
0.180	4.93	d90	[mm] 3.709	D90	[mm] 1.371	U-cijfer volgens formule van Zunker	
0.125	2.53	Cu	[-] 3.755	Cu _{zand}	[-] 2.651	F _m Fijnheidsmodulus	
0.090	1.93	Cc	[-] 0.788	Cc _{zand}	[-] 0.948		
Fijne delen 0.063	1.66	d90/d10	[-] 15.327	D90/D10	[-] 5.947		



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)

Korrelgrootteverdeling (NEN-EN-ISO 17892-4(2016))

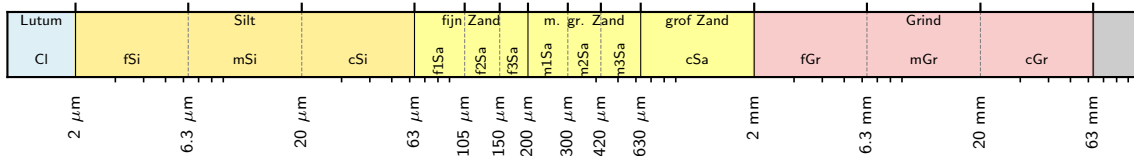
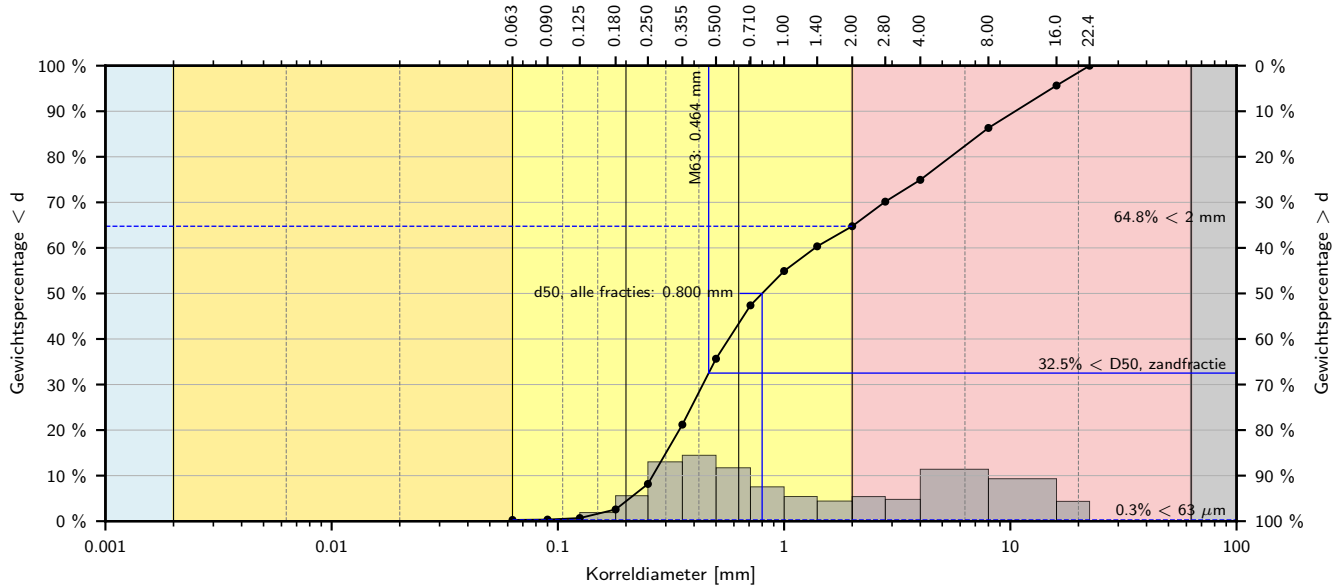
GEOLAB WIERTSEMA, TOLBERT



Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B10 (13954568-010)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1C10-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld
 van +0.00 tot -1.00 m. Maaiveld
 Laborant DW
 Beproeingsdatum 20-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling		gehele verdeling		zandfractie		Karakteristieken	
d [mm]	% < d	Kental	Waarde	Kental	Waarde		
22.4	100.00	d10	[mm] 0.263	D10	[mm] 0.230	Grind (2 - 63 mm)	[%] 35.2
16.0	95.65	d15	[mm] 0.300	D15	[mm] 0.262	Zand (63 μm - 2 mm)	[%] 64.5
8.0	86.33	d20	[mm] 0.344	D20	[mm] 0.286	Fijne delen (< 63 μm)	[%] 0.3
4.0	74.94	d30	[mm] 0.437	D30	[mm] 0.340	M ₆₃ Zandmediaan (M _z)	[mm] 0.464
2.8	70.15	d40	[mm] 0.569	D40	[mm] 0.398	middelgrof (420 μm - 630 μm)	
		d50	[mm] 0.800	D50	[mm] 0.464	M ₂₀₀₀ Grindmediaan	[mm] 6.29
2.000	64.75	d60	[mm] 1.371	D60	[mm] 0.552	(M _g)	
1.400	60.34	d70	[mm] 2.774	D70	[mm] 0.669	M ₅₀	[mm] -
1.000	54.92	d80	[mm] 5.443	D80	[mm] 0.870	U ₁₆ (16 μm - 2 mm)	[-] -
0.710	47.38	d85	[mm] 7.378	D85	[mm] 1.010	U _{Zand} (63 μm - 2 mm)	[mm] 24.48
0.500	35.66	d90	[mm] 10.509	D90	[mm] 1.234	U-cijfer volgens formule van Zunker	
0.355	21.20					F _m Fijnheidsmodulus	[-] 3.788
0.250	8.17	Cu	[-] 5.220	Cu _{zand}	[-] 2.404		
0.180	2.58	Cc	[-] 0.531	Cc _{zand}	[-] 0.914		
0.125	0.68	d90/d10	[-] 40.017	D90/D10	[-] 5.375		
0.090	0.35						
Fijne delen 0.063	0.27						



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)

Korrelgrootteverdeling (NEN-EN-ISO 17892-4(2016))

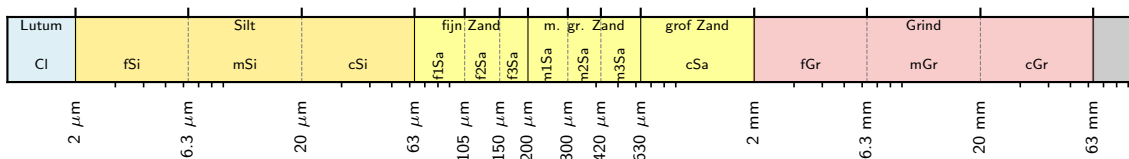
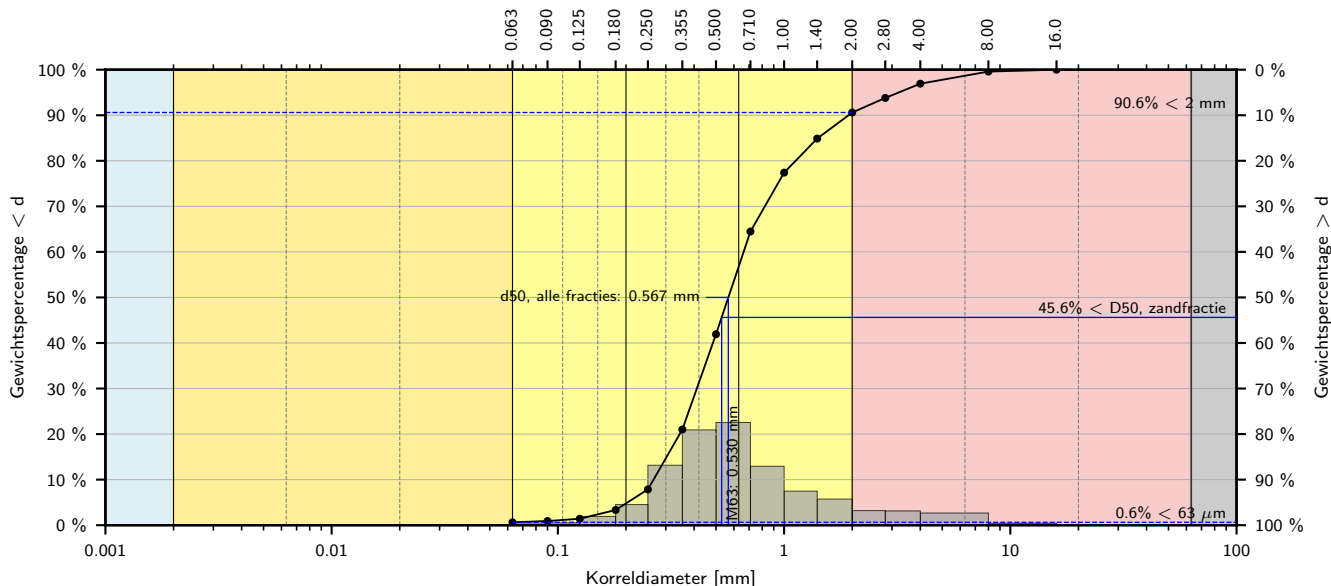
GEOLAB WIERTSEMA, TOLBERT



Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B11 (13954568-011)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1C1-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld
 van +0.00 tot -1.00 m. Maaiveld
 Laborant DW
 Beproeingsdatum 20-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling		gehele verdeling		zandfractie		Karakteristieken	
d [mm]	% < d	Kental	Waarde	Kental	Waarde		
16.0	100.00	d10	[mm] 0.265	D10	[mm] 0.262	Grind (2 - 63 mm)	[%] 9.4
8.0	99.59	d15	[mm] 0.302	D15	[mm] 0.295	Zand (63 μm - 2 mm)	[%] 90.0
4.0	96.93	d20	[mm] 0.346	D20	[mm] 0.333	Fijne delen (< 63 μm)	[%] 0.6
2.8	93.80	d30	[mm] 0.411	D30	[mm] 0.396	M ₆₃ Zandmediaan (M _z)	[mm] 0.530
2.000	90.60	d40	[mm] 0.484	D40	[mm] 0.458	middelgrof (420 μm - 630 μm)	
1.400	84.87	d50	[mm] 0.567	D50	[mm] 0.530	M ₂₀₀₀ Grindmediaan	[mm] 3.32
1.000	77.40	d60	[mm] 0.662	D60	[mm] 0.609	(M _g)	
0.710	64.47	d70	[mm] 0.822	D70	[mm] 0.701	M ₅₀	[mm] -
0.500	41.92	d80	[mm] 1.124	D80	[mm] 0.881	U ₁₆ (16 μm - 2 mm)	[-] -
0.355	21.01	d85	[mm] 1.411	D85	[mm] 0.992	U _{Zand} (63 μm - 2 mm)	[mm] 22.26
0.250	7.85	d90	[mm] 1.926	D90	[mm] 1.208	U-cijfer volgens formule van Zunker	
0.180	3.33	Cu	[-] 2.502	Cu _{zand}	[-] 2.324	F _m Fijnheidsmodulus	[-] 2.843
0.125	1.41	Cc	[-] 0.965	Cc _{zand}	[-] 0.980		
0.090	0.90	d90/d10	[-] 7.277	D90/D10	[-] 4.610		
Fijne delen 0.063	0.63						



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)

Korrelgrootteverdeling (NEN-EN-ISO 17892-4(2016))

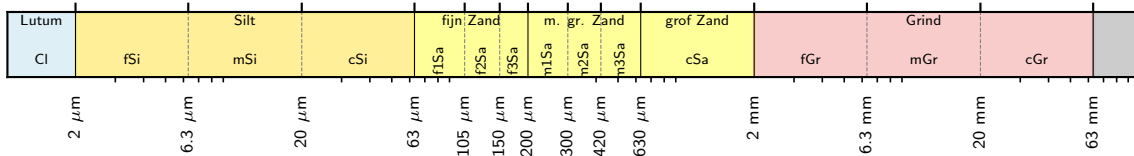
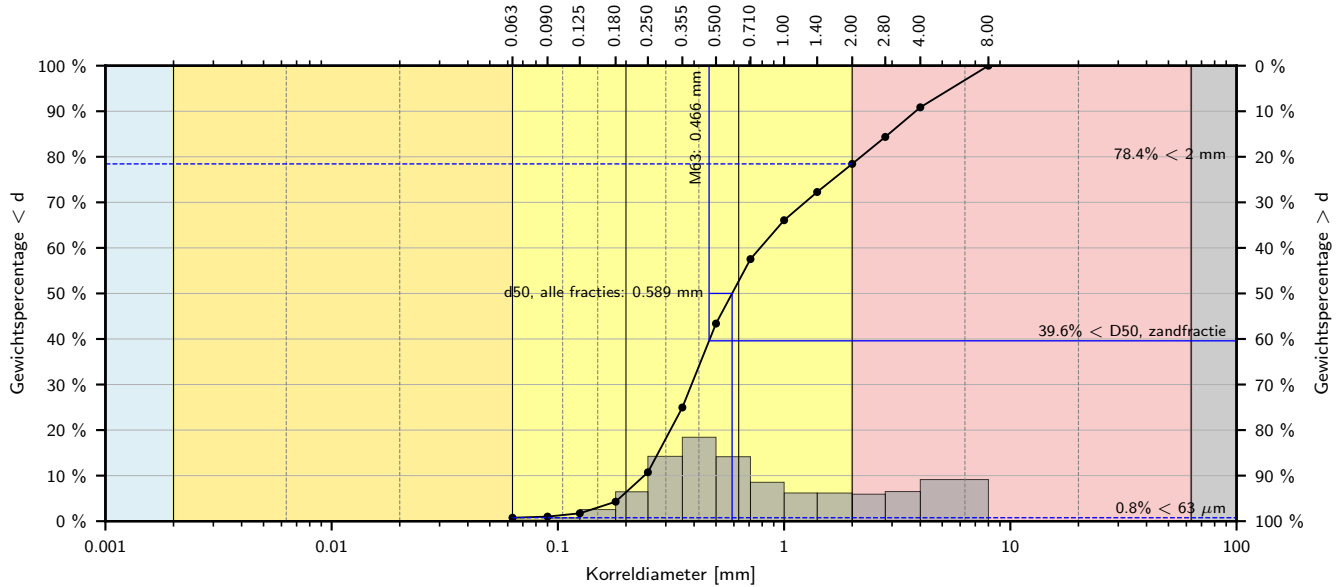
GEOLAB WIERTSEMA, TOLBERT



Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B12 (13954568-012)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1C22-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld
 van +0.00 tot -1.00 m. Maaiveld
 Laborant TR
 Beproevingsdatum 20-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling		gehele verdeling		zandfractie		Karakteristieken	
d [mm]	% < d	Kental	Waarde	Kental	Waarde		
8.0	100.00	d10	[mm] 0.241	D10	[mm] 0.223	Grind (2 - 63 mm)	[%] 21.6
4.0	90.86	d15	[mm] 0.278	D15	[mm] 0.261	Zand (63 μm - 2 mm)	[%] 77.7
2.8	84.36	d20	[mm] 0.314	D20	[mm] 0.287	Fijne delen (< 63 μm)	[%] 0.8
2.000	78.44	d30	[mm] 0.390	D30	[mm] 0.347	M ₆₃ Zandmediaan (M _z)	[mm] 0.466
1.400	72.27	d40	[mm] 0.470	D40	[mm] 0.403	middelgrof (420 μm - 630 μm)	
1.000	66.08	d50	[mm] 0.589	D50	[mm] 0.466	M ₂₀₀₀ Grindmediaan	[mm] 3.66
0.710	57.54	d60	[mm] 0.784	D60	[mm] 0.552	(M _g)	
0.500	43.38	d70	[mm] 1.238	D70	[mm] 0.669	M ₅₀	[mm] -
0.355	24.96	d80	[mm] 2.185	D80	[mm] 0.880	U ₁₆ (16 μm - 2 mm)	[-] -
0.250	10.73	d85	[mm] 2.900	D85	[mm] 1.039	U _{Zand} (63 μm - 2 mm)	[mm] 24.82
0.180	4.28	d90	[mm] 3.815	D90	[mm] 1.284	U-cijfer volgens formule van Zunker	
0.125	1.73	Cu	[-] 3.254	Cu _{zand}	[-] 2.470	F _m Fijnheidsmodulus	[-] 3.088
0.090	1.00	Cc	[-] 0.805	Cc _{zand}	[-] 0.978		
Fijne delen 0.063	0.76	d90/d10	[-] 15.838	D90/D10	[-] 5.745		



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer
31188389 (13954568)

Korrelgrootteverdeling
(NEN-EN-ISO 17892-4(2016))

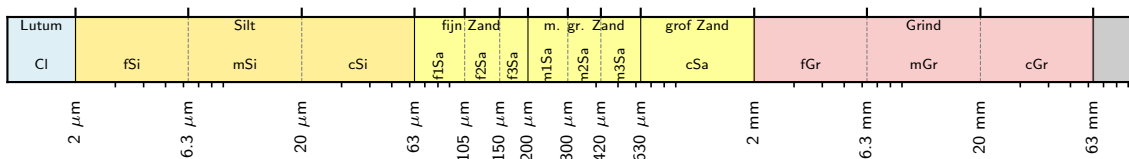
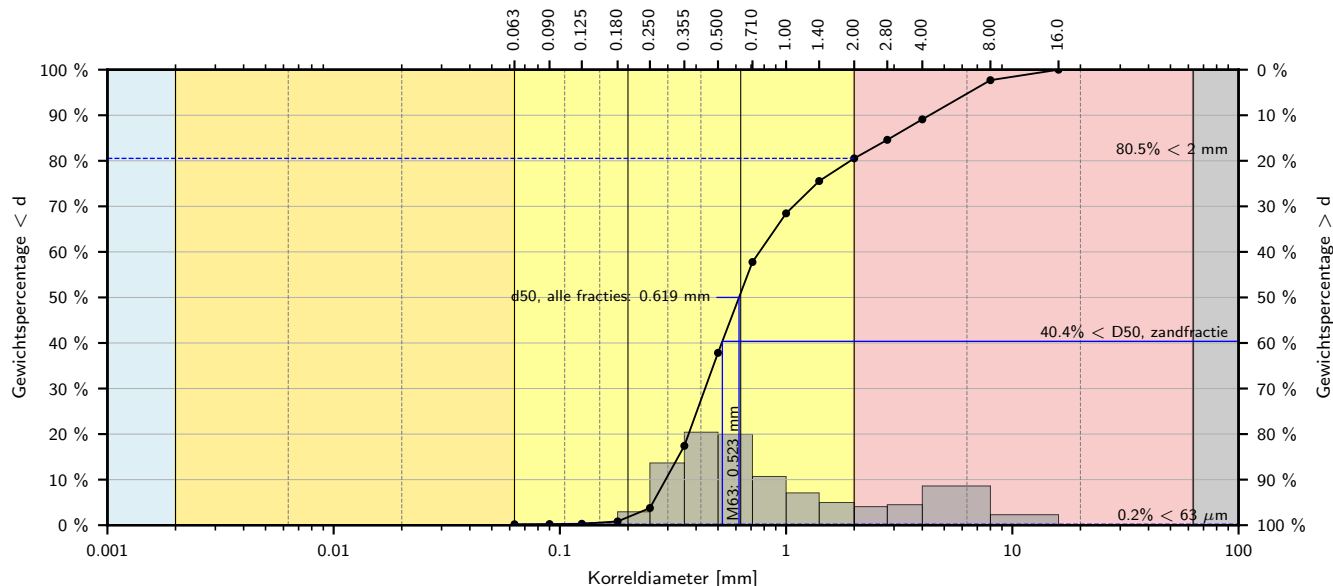
GEOLAB WIERTSEMA, TOLBERT



Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B13 (13954568-013)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1C12-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld
 van +0.00 tot -1.00 m. Maaiveld
 Laborant DW
 Beproeingsdatum 20-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling		gehele verdeling		zandfractie		Karakteristieken	
d [mm]	% < d	Kental	Waarde	Kental	Waarde		
16.0	100.00	d10	[mm] 0.293	D10	[mm] 0.280	Grind (2 - 63 mm)	[%] 19.5
8.0	97.70	d15	[mm] 0.334	D15	[mm] 0.311	Zand (63 μm - 2 mm)	[%] 80.3
4.0	89.10	d20	[mm] 0.371	D20	[mm] 0.345	Fijne delen (< 63 μm)	[%] 0.2
2.8	84.60	d30	[mm] 0.438	D30	[mm] 0.398	M ₆₃ Zandmediaan (M _z)	[mm] 0.523
2.000	80.53	d40	[mm] 0.519	D40	[mm] 0.456	middelgrof (420 μm - 630 μm)	
1.400	75.55	d50	[mm] 0.619	D50	[mm] 0.523	M ₂₀₀₀ Grindmediaan	[mm] 4.39
1.000	68.46	d60	[mm] 0.763	D60	[mm] 0.602	(M _g)	
0.710	57.77	d70	[mm] 1.076	D70	[mm] 0.693	M ₅₀	[mm] -
0.500	37.84	d80	[mm] 1.926	D80	[mm] 0.880	U ₁₆ (16 μm - 2 mm)	[-] -
0.355	17.42	d85	[mm] 2.890	D85	[mm] 1.001	U _{Zand} (63 μm - 2 mm)	[mm] 21.00
0.250	3.76	d90	[mm] 4.302	D90	[mm] 1.211	U-cijfer volgens formule van Zunker	
0.180	0.82	Cu	[-] 2.599	Cu _{zand}	[-] 2.147	F _m Fijnheidsmodulus	[-] 3.223
0.125	0.31	Cc	[-] 0.859	Cc _{zand}	[-] 0.940		
0.090	0.24	d90/d10	[-] 14.662	D90/D10	[-] 4.319		
Fijne delen 0.063	0.20						



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)

Korrelgrootteverdeling (NEN-EN-ISO 17892-4(2016))

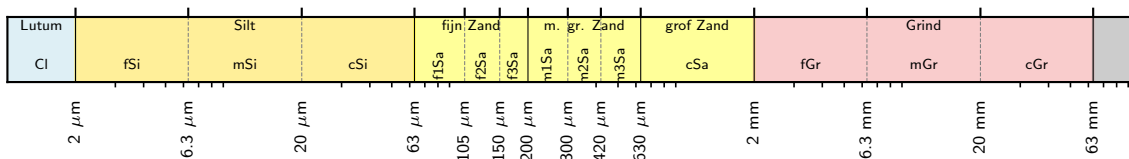
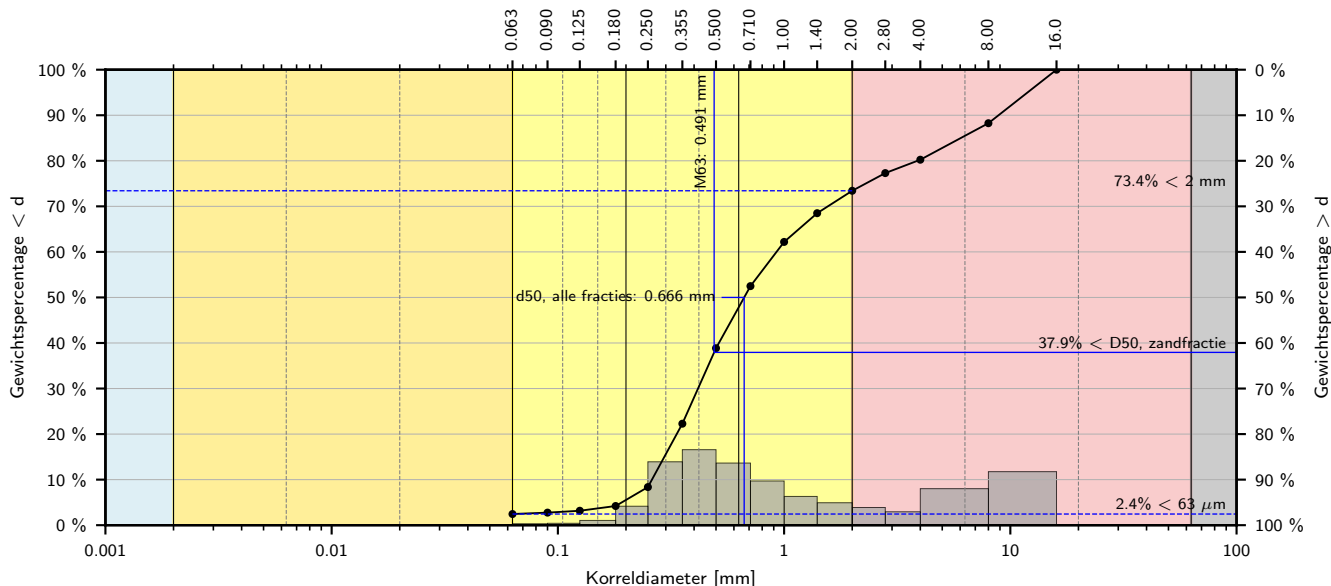
GEOLAB WIERTSEMA, TOLBERT



Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B14 (13954568-014)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1C8-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld
 van +0.00 tot -1.00 m. Maaiveld
 Laborant TR
 Beproeingsdatum 23-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling		gehele verdeling		zandfractie		Karakteristieken	
d [mm]	% < d	Kental	Waarde	Kental	Waarde		
16.0	100.00	d10	[mm] 0.261	D10	[mm] 0.258	Grind (2 - 63 mm)	[%] 26.6
8.0	88.25	d15	[mm] 0.295	D15	[mm] 0.282	Zand (63 μm - 2 mm)	[%] 71.0
4.0	80.24	d20	[mm] 0.335	D20	[mm] 0.308	Fijne delen (< 63 μm)	[%] 2.5
2.8	77.30	d30	[mm] 0.416	D30	[mm] 0.366	M ₆₃ Zandmediaan (M _z)	[mm] 0.491
2.000	73.42	d40	[mm] 0.515	D40	[mm] 0.424	middelgrof (420 μm - 630 μm)	
1.400	68.50	d50	[mm] 0.666	D50	[mm] 0.491	M ₂₀₀₀ Grindmediaan	[mm] 7.00
1.000	62.19	d60	[mm] 0.926	D60	[mm] 0.586	(M _g)	
0.710	52.49	d70	[mm] 1.561	D70	[mm] 0.703	M ₅₀	[mm] -
0.500	38.85	d80	[mm] 3.887	D80	[mm] 0.901	U ₁₆ (16 μm - 2 mm)	[-] -
0.355	22.28	d85	[mm] 6.039	D85	[mm] 1.032	U _{Zand} (63 μm - 2 mm)	[mm] 23.11
0.250	8.37	d90	[mm] 8.869	D90	[mm] 1.247	U-cijfer volgens formule van Zunker	
0.180	4.21	Cu	[-] 3.553	Cu _{zand}	[-] 2.276	F _m Fijnheidsmodulus	[-] 3.454
0.125	3.17	Cc	[-] 0.719	Cc _{zand}	[-] 0.887		
0.090	2.76	d90/d10	[-] 34.045	D90/D10	[-] 4.841		
Fijne delen 0.063	2.45						



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)

Korrelgrootteverdeling (NEN-EN-ISO 17892-4(2016))

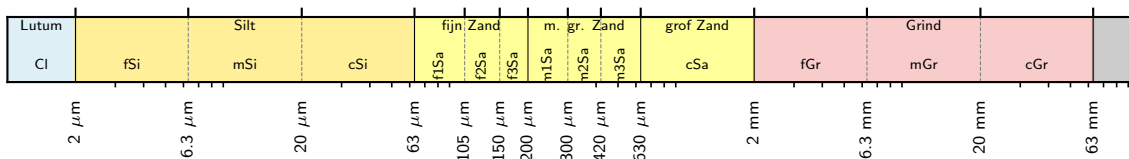
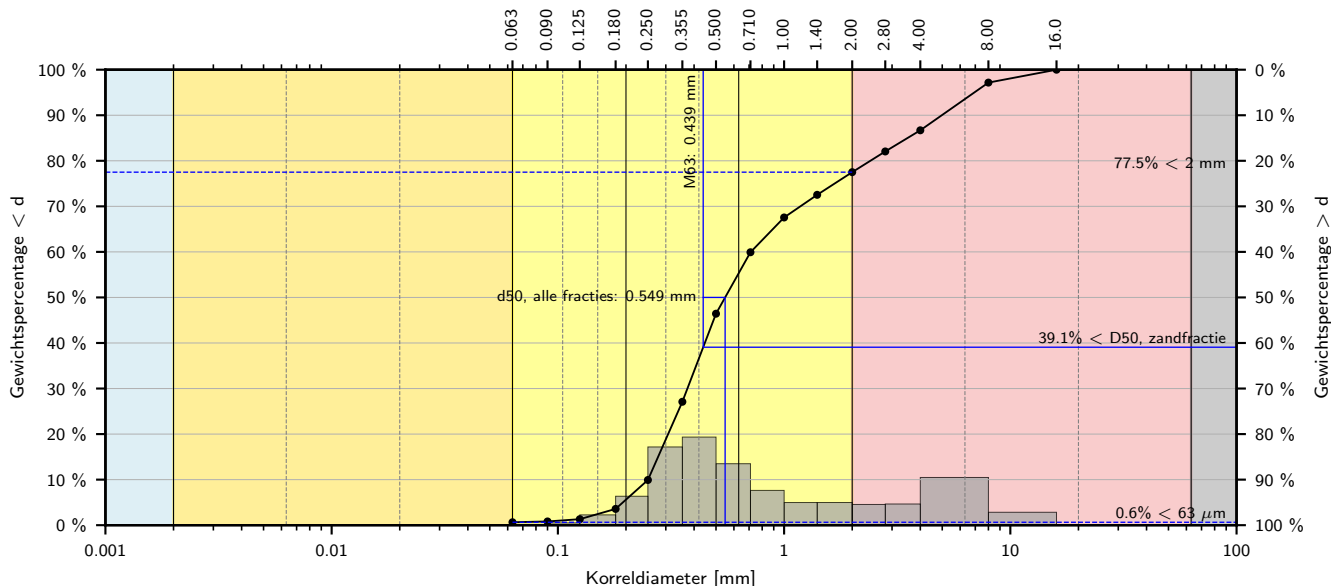
GEOLAB WIERTSEMA, TOLBERT



Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B15 (13954568-015)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1C20-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld
 van +0.00 tot -1.00 m. Maaiveld
 Laborant TR
 Beproeingsdatum 20-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling		gehele verdeling		zandfractie		Karakteristieken	
d [mm]	% < d	Kental	Waarde	Kental	Waarde		
16.0	100.00	d10	[mm] 0.250	D10	[mm] 0.230	Grind (2 - 63 mm)	[%] 22.5
8.0	97.17	d15	[mm] 0.277	D15	[mm] 0.262	Zand (63 μm - 2 mm)	[%] 76.9
4.0	86.70	d20	[mm] 0.307	D20	[mm] 0.283	Fijne delen (< 63 μm)	[%] 0.6
2.8	82.05	d30	[mm] 0.374	D30	[mm] 0.331	M ₆₃ Zandmediaan (M _z)	[mm] 0.439
2.000	77.50	d40	[mm] 0.446	D40	[mm] 0.383	middelgrof (420 μm - 630 μm)	
1.400	72.53	d50	[mm] 0.549	D50	[mm] 0.439	M ₂₀₀₀ Grindmediaan	[mm] 4.58
1.000	67.56	d60	[mm] 0.712	D60	[mm] 0.504	(M _g)	
0.710	59.92	d70	[mm] 1.180	D70	[mm] 0.616	M ₅₀	[mm] -
0.500	46.43	d80	[mm] 2.406	D80	[mm] 0.784	U ₁₆ (16 μm - 2 mm)	[-] -
0.355	27.09	d85	[mm] 3.512	D85	[mm] 0.932	U _{Zand} (63 μm - 2 mm)	[mm] 25.42
0.250	9.92	d90	[mm] 4.978	D90	[mm] 1.165	U-cijfer volgens formule van Zunker	
0.180	3.57	Cu	[-] 2.845	Cu _{zand}	[-] 2.191	F _m Fijnheidsmodulus	[-] 3.134
0.125	1.32	Cc	[-] 0.783	Cc _{zand}	[-] 0.945		
0.090	0.82	d90/d10	[-] 19.879	D90/D10	[-] 5.063		
Fijne delen 0.063	0.64						



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)

Korrelgrootteverdeling (NEN-EN-ISO 17892-4(2016))

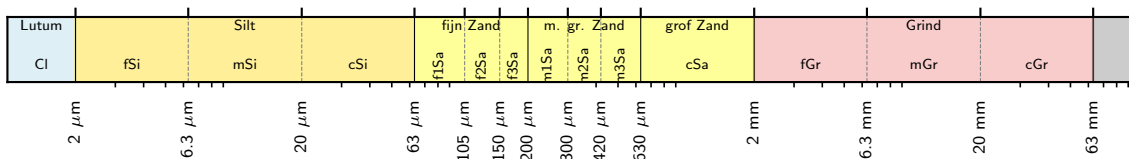
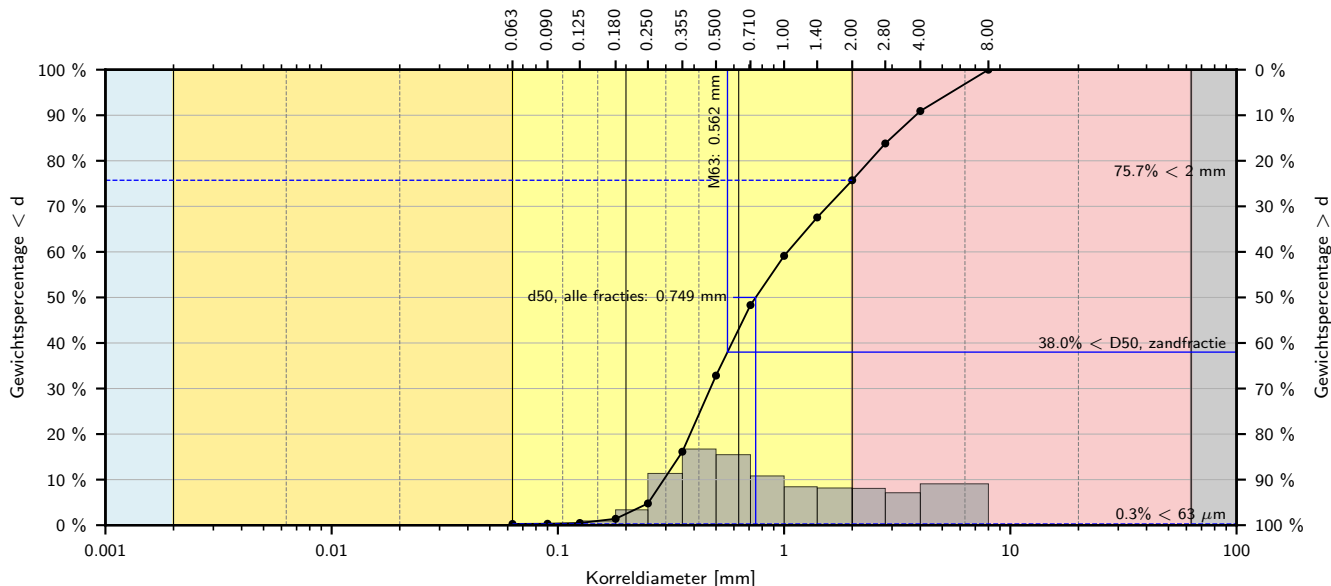
GEOLAB WIERTSEMA, TOLBERT



Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B16 (13954568-016)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1C6-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld
 van +0.00 tot -1.00 m. Maaiveld
 Laborant TR
 Beproevingsdatum 20-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling		gehele verdeling		zandfractie		Karakteristieken	
d [mm]	% < d	Kental	Waarde	Kental	Waarde		
8.0	100.00	d10	[mm] 0.294	D10	[mm] 0.275	Grind (2 - 63 mm)	[%] 24.3
4.0	90.92	d15	[mm] 0.343	D15	[mm] 0.309	Zand (63 μm - 2 mm)	[%] 75.5
2.8	83.80	d20	[mm] 0.384	D20	[mm] 0.347	Fijne delen (< 63 μm)	[%] 0.3
2.000	75.73	d30	[mm] 0.472	D30	[mm] 0.408	M ₆₃ Zandmediaan (M _z)	[mm] 0.562
1.400	67.56	d40	[mm] 0.588	D40	[mm] 0.476	middelgrof (420μm - 630μm)	
1.000	59.13	d50	[mm] 0.749	D50	[mm] 0.562	M ₂₀₀₀ Grindmediaan	[mm] 3.43
0.710	48.32	d60	[mm] 1.035	D60	[mm] 0.667	(M _g)	
0.500	32.84	d70	[mm] 1.557	D70	[mm] 0.826	M ₅₀	[mm] -
0.355	16.13	d80	[mm] 2.390	D80	[mm] 1.062	U ₁₆ (16 μm - 2 mm)	[-] -
0.250	4.77	d85	[mm] 2.973	D85	[mm] 1.234	U _{Zand} (63 μm - 2 mm)	[mm] 20.35
0.180	1.40	d90	[mm] 3.819	D90	[mm] 1.438	U-cijfer volgens formule van Zunker	
0.125	0.48	Cu	[-] 3.524	Cu _{zand}	[-] 2.428	F _m Fijnheidsmodulus	[-] 3.362
0.090	0.31	Cc	[-] 0.731	Cc _{zand}	[-] 0.909		
Fijne delen 0.063	0.27	d90/d10	[-] 12.999	D90/D10	[-] 5.237		



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)

Korrelgrootteverdeling (NEN-EN-ISO 17892-4(2016))

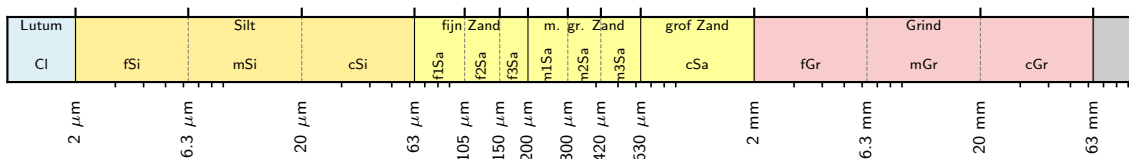
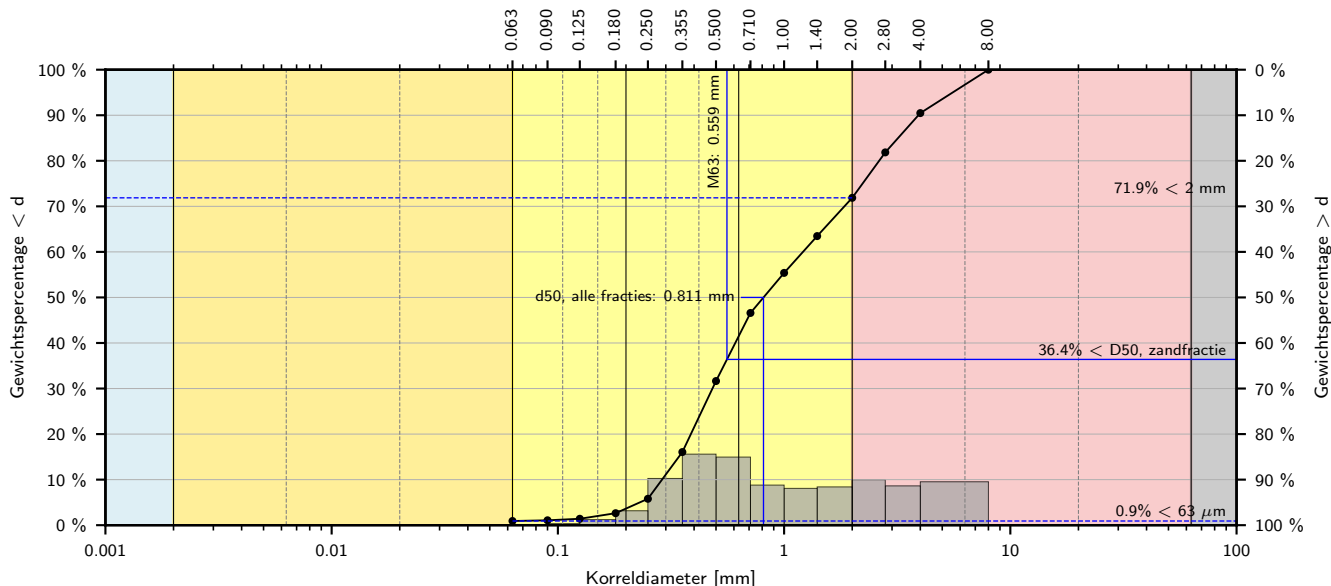
GEOLAB WIERTSEMA, TOLBERT



Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B17 (13954568-017)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1C23-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld van +0.00 tot -1.00 m. Maaiveld
 Laborant WK
 Beproeingsdatum 20-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling	
d [mm]	% < d
8.0	100.00
4.0	90.47
2.8	81.85
<hr/>	
2.000	71.87
1.400	63.47
1.000	55.39
0.710	46.59
0.500	31.64
0.355	16.05
0.250	5.80
0.180	2.63
0.125	1.41
0.090	1.07
<hr/>	
Fijne delen 0.063	0.92

gehele verdeling		
Kental		Waarde
d10	[mm]	0.289
d15	[mm]	0.342
d20	[mm]	0.387
d30	[mm]	0.482
d40	[mm]	0.608
d50	[mm]	0.811
d60	[mm]	1.212
d70	[mm]	1.847
d80	[mm]	2.631
d85	[mm]	3.190
d90	[mm]	3.923
Cu	[-]	4.198
Cc	[-]	0.665
d90/d10	[-]	13.590

zandfractie		
Kental		Waarde
D10	[mm]	0.270
D15	[mm]	0.304
D20	[mm]	0.344
D30	[mm]	0.406
D40	[mm]	0.475
D50	[mm]	0.559
D60	[mm]	0.660
D70	[mm]	0.829
D80	[mm]	1.100
D85	[mm]	1.275
D90	[mm]	1.480
Cu _{zand}	[-]	2.448
Cc _{zand}	[-]	0.927
D90/D10	[-]	5.487

Karakteristieken		
Grind (2 - 63 mm)	[%]	28.1
Zand (63 μm - 2 mm)	[%]	71.0
Fijne delen (< 63 μm)	[%]	0.9
M ₆₃ Zandmediaan (M _z)	[mm]	0.559
middelgrof (420 μm - 630 μm)		
M ₂₀₀₀ Grindmediaan (M _g)	[mm]	3.32
M ₅₀	[mm]	-
U ₁₆ (16 μm - 2 mm)	[-]	-
U _{Zand} (63 μm - 2 mm)	[mm]	20.84
U-cijfer volgens formule van Zunker		
F _m Fijnheidsmodulus	[-]	3.434



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)

Korrelgrootteverdeling (NEN-EN-ISO 17892-4(2016))

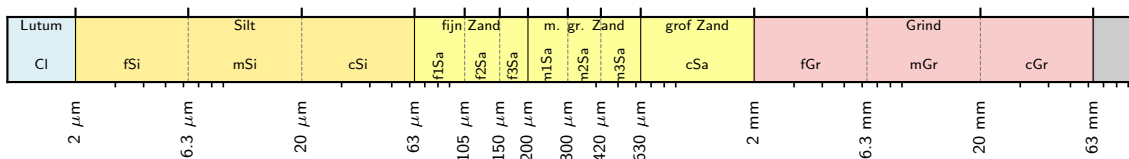
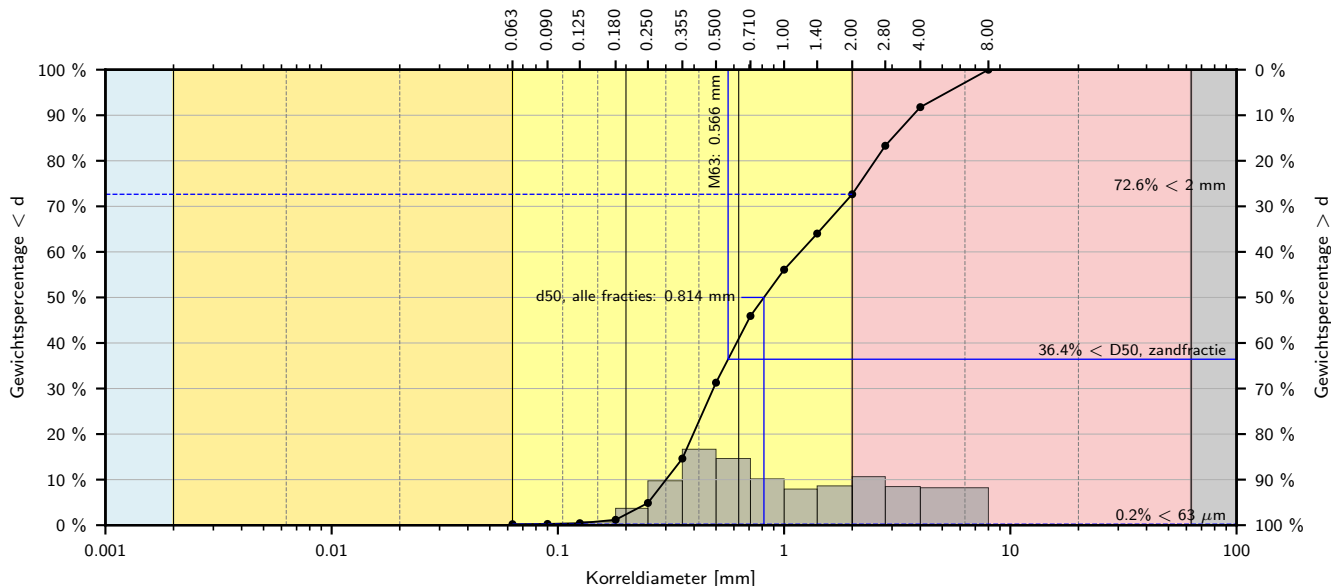
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Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B18 (13954568-018)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1C15-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld van +0.00 tot -1.00 m. Maaiveld TR
 Laborant TR
 Beproevingsdatum 20-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling	
d [mm]	% < d
8.0	100.00
4.0	91.78
2.8	83.30
2.000	72.65
1.400	64.02
1.000	56.10
0.710	45.93
0.500	31.29
0.355	14.63
0.250	4.88
0.180	1.18
0.125	0.43
0.090	0.27
Fijne delen 0.063	0.22

gehele verdeling		
Kental		Waarde
d10	[mm]	0.301
d15	[mm]	0.358
d20	[mm]	0.396
d30	[mm]	0.487
d40	[mm]	0.616
d50	[mm]	0.814
d60	[mm]	1.180
d70	[mm]	1.793
d80	[mm]	2.523
d85	[mm]	3.007
d90	[mm]	3.711
Cu	[-]	3.926
Cc	[-]	0.668
d90/d10	[-]	12.347

zandfractie		
Kental		Waarde
D10	[mm]	0.274
D15	[mm]	0.313
D20	[mm]	0.356
D30	[mm]	0.413
D40	[mm]	0.479
D50	[mm]	0.566
D60	[mm]	0.673
D70	[mm]	0.840
D80	[mm]	1.092
D85	[mm]	1.273
D90	[mm]	1.482
Cu _{zand}	[-]	2.452
Cc _{zand}	[-]	0.923
D90/D10	[-]	5.403

Karakteristieken		
Grind (2 - 63 mm)	[%]	27.4
Zand (63 μm - 2 mm)	[%]	72.4
Fijne delen (< 63 μm)	[%]	0.2
M ₆₃ Zandmediaan (M _z)	[mm]	0.566
middelgrof (420 μm - 630 μm)		
M ₂₀₀₀ Grindmediaan (M _g)	[mm]	3.18
M ₅₀	[mm]	-
U ₁₆ (16 μm - 2 mm)	[-]	-
U _{Zand} (63 μm - 2 mm)	[mm]	20.18
U-cijfer volgens formule van Zunker		
F _m Fijnheidsmodulus	[-]	3.429



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)

Korrelgrootteverdeling (NEN-EN-ISO 17892-4(2016))

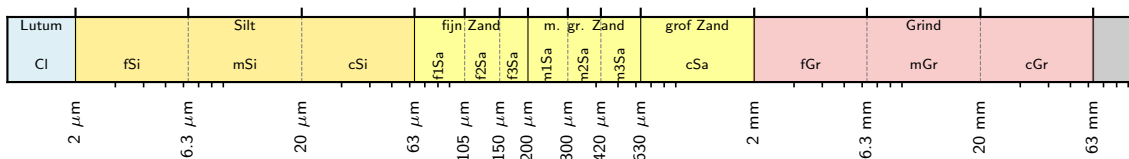
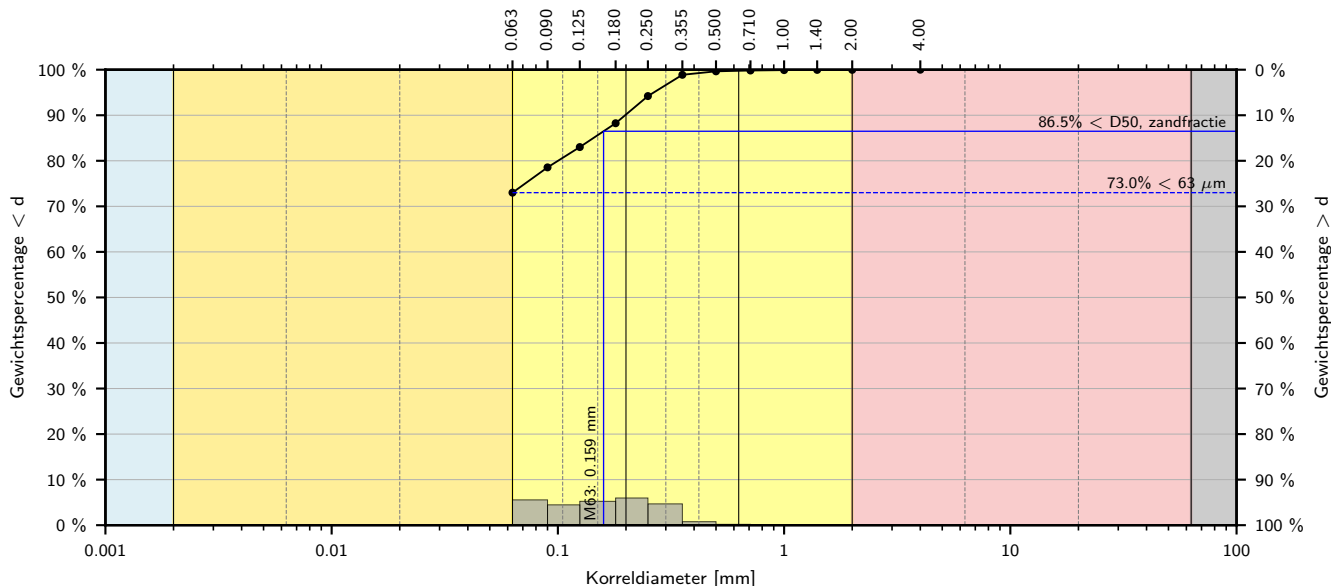
GEOLAB WIERTSEMA, TOLBERT



Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B19 (13954568-019)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1C13-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld
 van +0.00 tot -1.00 m. Maaiveld
 Laborant DW
 Beproeingsdatum 23-10-2023
 Grondsoort KLEI



Korrelgrootteverdeling		gehele verdeling		zandfractie		Karakteristieken		
d [mm]	% < d	Kental	Waarde	Kental	Waarde			
Grind 4.0	100.00	d10 [mm]	-	D10 [mm]	0.075	Grind (2 - 63 mm)	[%]	0.0
2.000	99.97	d15 [mm]	-	D15 [mm]	0.082	Zand (63 μm - 2 mm)	[%]	27.0
1.400	99.96	d20 [mm]	-	D20 [mm]	0.089	Fijne delen (< 63 μm)	[%]	73.0
1.000	99.91	d30 [mm]	-	D30 [mm]	0.109	M ₆₃ Zandmediaan (M _z)	[mm]	0.159
0.710	99.83	d40 [mm]	-	D40 [mm]	0.132	fijn (150 μm - 200 μm)		
Zand 0.500	99.65	d50 [mm]	-	D50 [mm]	0.159	M ₂₀₀₀ Grindmediaan (M _g)	[mm]	2.83
0.355	98.88	d60 [mm]	-	D60 [mm]	0.190	M ₅₀	[mm]	-
0.250	94.21	d70 [mm]	-	D70 [mm]	0.220	U ₁₆ (16 μm - 2 mm)	[-]	-
0.180	88.25	d80 [mm]	0.100	D80 [mm]	0.257	U _{Zand} (63 μm - 2 mm)	[mm]	73.31
0.125	83.01	d85 [mm]	0.144	D85 [mm]	0.284	U-cijfer volgens formule van Zunker		
0.090	78.55	d90 [mm]	0.198	D90 [mm]	0.315	F _m Fijnheidsmodulus	[-]	0.233
Fijne delen 0.063	73.01	Cu [-]	-	Cu _{zand} [-]	2.530			
		Cc [-]	-	Cc _{zand} [-]	0.829			
		d90/d10 [-]	-	D90/D10 [-]	4.200			



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer
31188389 (13954568)

Korrelgrootteverdeling
(NEN-EN-ISO 17892-4(2016))

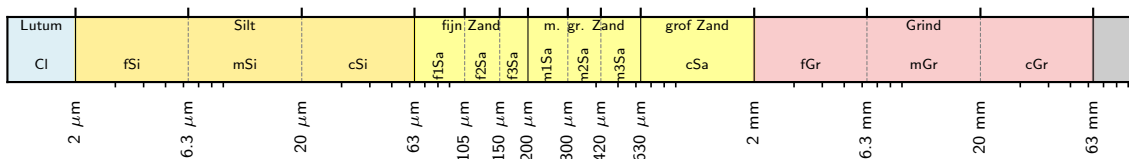
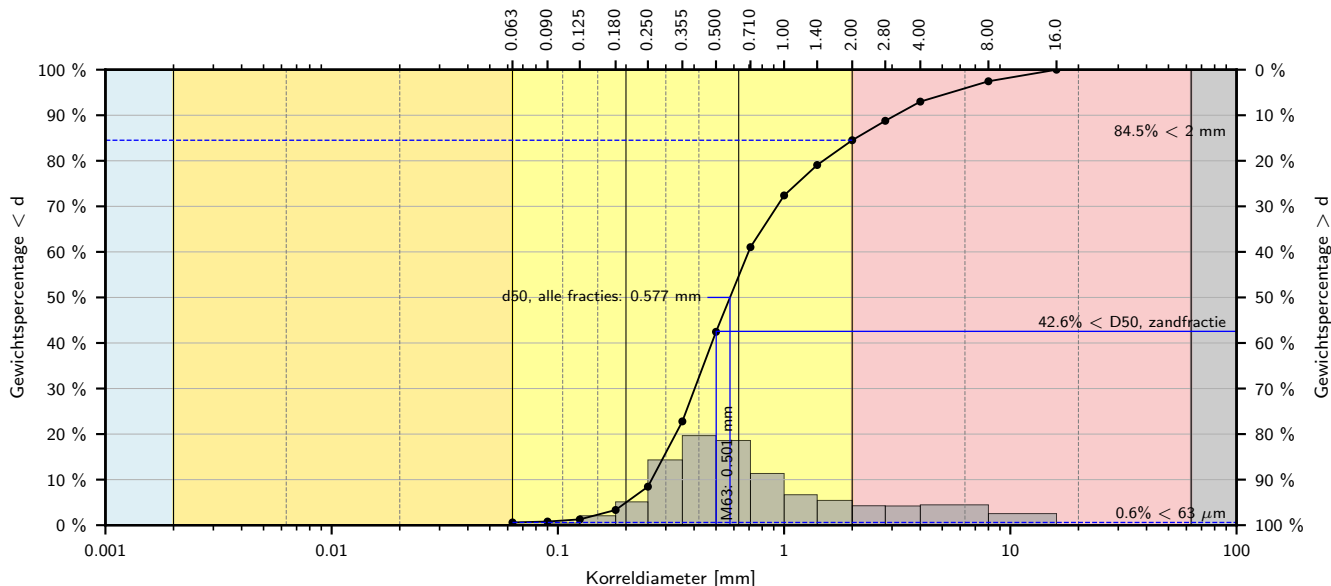
GEOLAB WIERTSEMA, TOLBERT



Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B20 (13954568-020)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1C5-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld
 van +0.00 tot -1.00 m. Maaiveld
 Laborant DW
 Beproeingsdatum 20-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling		gehele verdeling		zandfractie		Karakteristieken	
d [mm]	% < d	Kental	Waarde	Kental	Waarde		
16.0	100.00	d10	[mm] 0.260	D10	[mm] 0.253	Grind (2 - 63 mm)	[%] 15.5
8.0	97.46	d15	[mm] 0.293	D15	[mm] 0.281	Zand (63 μm - 2 mm)	[%] 83.9
4.0	92.99	d20	[mm] 0.332	D20	[mm] 0.311	Fijne delen (< 63 μm)	[%] 0.6
2.8	88.78	d30	[mm] 0.403	D30	[mm] 0.374	M ₆₃ Zandmediaan (M _z)	[mm] 0.501
2.000	84.51	d40	[mm] 0.479	D40	[mm] 0.433	middelgrof (420 μm - 630 μm)	
1.400	79.08	d50	[mm] 0.577	D50	[mm] 0.501	M ₂₀₀₀ Grindmediaan	[mm] 3.76
1.000	72.39	d60	[mm] 0.696	D60	[mm] 0.587	(M _g)	
0.710	61.04	d70	[mm] 0.930	D70	[mm] 0.688	M ₅₀	[mm] -
0.500	42.45	d80	[mm] 1.488	D80	[mm] 0.869	U ₁₆ (16 μm - 2 mm)	[-] -
0.355	22.78	d85	[mm] 2.078	D85	[mm] 0.986	U _{Zand} (63 μm - 2 mm)	[mm] 23.16
0.250	8.46	d90	[mm] 3.105	D90	[mm] 1.207	U-cijfer volgens formule van Zunker	
0.180	3.34	Cu	[-] 2.682	Cu _{zand}	[-] 2.317	F _m Fijnheidsmodulus	[-] 3.004
0.125	1.27	Cc	[-] 0.896	Cc _{zand}	[-] 0.941		
0.090	0.79	d90/d10	[-] 11.959	D90/D10	[-] 4.764		
Fijne delen 0.063	0.60						



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)

Korrelgrootteverdeling (NEN-EN-ISO 17892-4(2016))

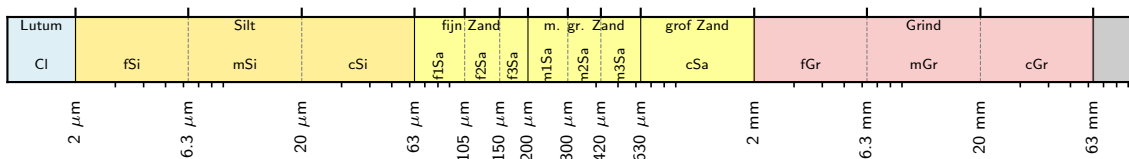
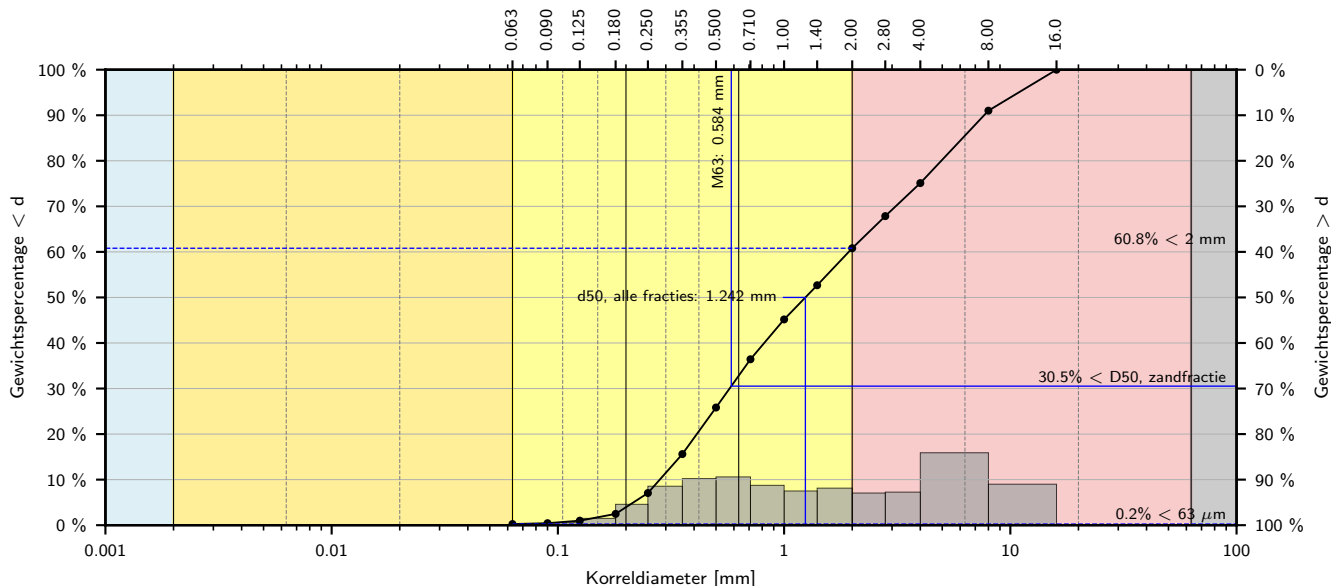
GEOLAB WIERTSEMA, TOLBERT



Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B21 (13954568-021)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1C9-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld
 van +0.00 tot -1.00 m. Maaiveld
 Laborant TR
 Beproeingsdatum 23-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling		gehele verdeling		zandfractie		Karakteristieken		
d [mm]	% < d	Kental	Waarde	Kental	Waarde			
16.0	100.00	d10	[mm]	D10	[mm]	Grind (2 - 63 mm)	[%]	39.2
8.0	91.00	d15	[mm]	D15	[mm]	Zand (63 μm - 2 mm)	[%]	60.5
4.0	75.11	d20	[mm]	D20	[mm]	Fijne delen (< 63 μm)	[%]	0.2
2.8	67.85	d30	[mm]	D30	[mm]	M ₆₃ Zandmediaan (M _z)	[mm]	0.584
2.000	60.80	d40	[mm]	D40	[mm]	middelgrof (420 μm - 630 μm)		
1.400	52.67	d50	[mm]	D50	[mm]	M ₂₀₀₀ Grindmediaan	[mm]	5.04
1.000	45.17	d60	[mm]	D60	[mm]	(M _g)		
0.710	36.42	d70	[mm]	D70	[mm]	M ₅₀	[mm]	-
0.500	25.83	d80	[mm]	D80	[mm]	U ₁₆ (16 μm - 2 mm)	[-]	-
0.355	15.61	d85	[mm]	D85	[mm]	U _{Zand} (63 μm - 2 mm)	[mm]	21.83
0.250	7.05	d90	[mm]	D90	[mm]	U-cijfer volgens formule van Zunker		
0.180	2.48	Cu	[-]	Cu _{zand}	[-]	F _m Fijnheidsmodulus	[-]	3.940
0.125	0.99	Cc	[-]	Cc _{zand}	[-]			
0.090	0.44	d90/d10	[-]	D90/D10	[-]			
Fijne delen 0.063	0.25							



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)

Korrelgrootteverdeling (NEN-EN-ISO 17892-4(2016))

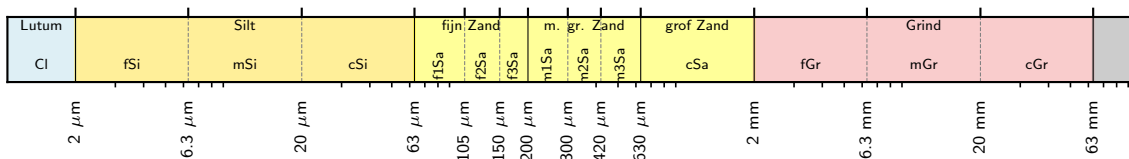
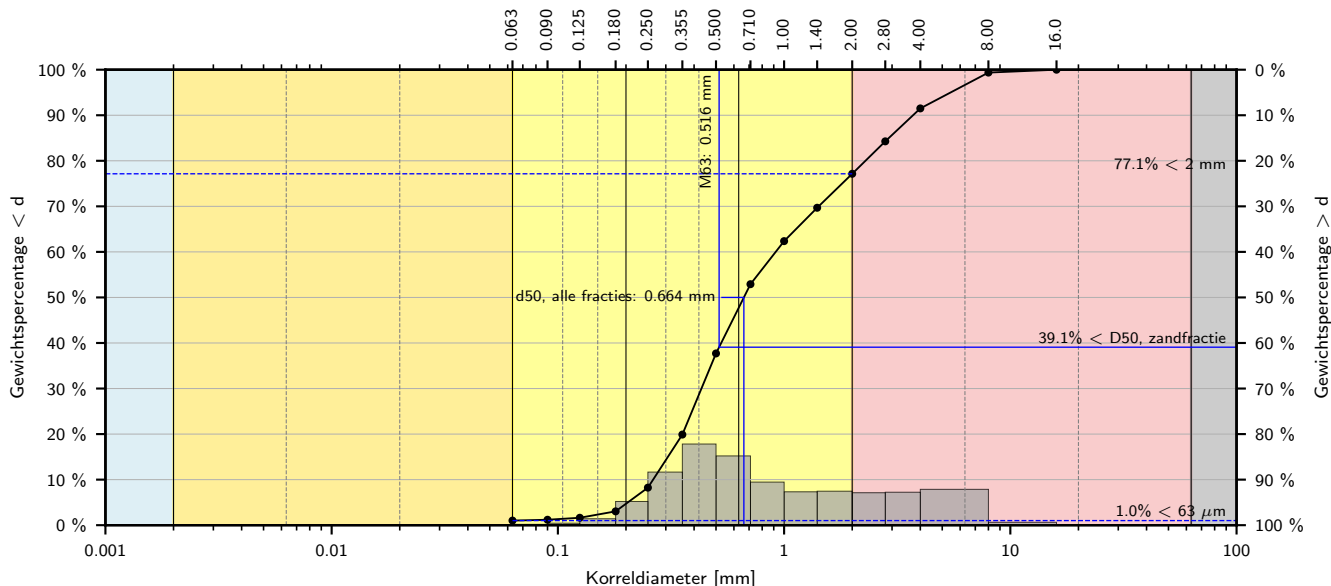
GEOLAB WIERTSEMA, TOLBERT



Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B22 (13954568-022)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1C11-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld
 van +0.00 tot -1.00 m. Maaiveld
 Laborant TR
 Beproeingsdatum 20-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling	
d [mm]	% < d
16.0	100.00
8.0	99.37
4.0	91.50
2.8	84.27
2.000	77.15
1.400	69.69
1.000	62.36
0.710	52.91
0.500	37.71
0.355	19.89
0.250	8.24
0.180	3.04
0.125	1.63
0.090	1.19
Fijne delen 0.063	1.01

gehele verdeling		
Kental		Waarde
d10	[mm]	0.264
d15	[mm]	0.306
d20	[mm]	0.356
d30	[mm]	0.431
d40	[mm]	0.527
d50	[mm]	0.664
d60	[mm]	0.918
d70	[mm]	1.421
d80	[mm]	2.289
d85	[mm]	2.903
d90	[mm]	3.715
Cu	[-]	3.482
Cc	[-]	0.768
d90/d10	[-]	14.092

zandfractie		
Kental		Waarde
D10	[mm]	0.253
D15	[mm]	0.284
D20	[mm]	0.318
D30	[mm]	0.383
D40	[mm]	0.443
D50	[mm]	0.516
D60	[mm]	0.615
D70	[mm]	0.747
D80	[mm]	0.984
D85	[mm]	1.167
D90	[mm]	1.390
Cu _{zand}	[-]	2.432
Cc _{zand}	[-]	0.943
D90/D10	[-]	5.496

Karakteristieken		
Grind (2 - 63 mm)	[%]	22.9
Zand (63 μm - 2 mm)	[%]	76.1
Fijne delen (< 63 μm)	[%]	1.0
M ₆₃ Zandmediaan (M _z)	[mm]	0.516
middelgrof (420 μm - 630 μm)		
M ₂₀₀₀ Grindmediaan (M _g)	[mm]	3.46
M ₅₀	[mm]	-
U ₁₆ (16 μm - 2 mm)	[-]	-
U _{Zand} (63 μm - 2 mm)	[mm]	22.34
U-cijfer volgens formule van Zunker		
F _m Fijnheidsmodulus	[-]	3.221



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer
31188389 (13954568)

Korrelgrootteverdeling
(NEN-EN-ISO 17892-4(2016))

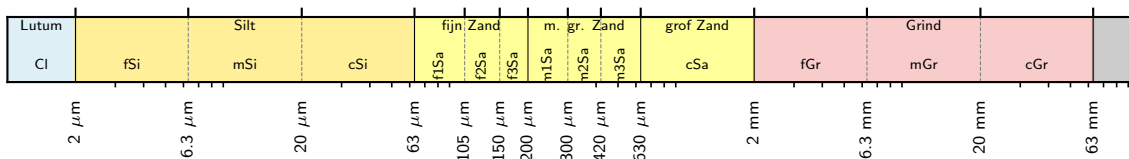
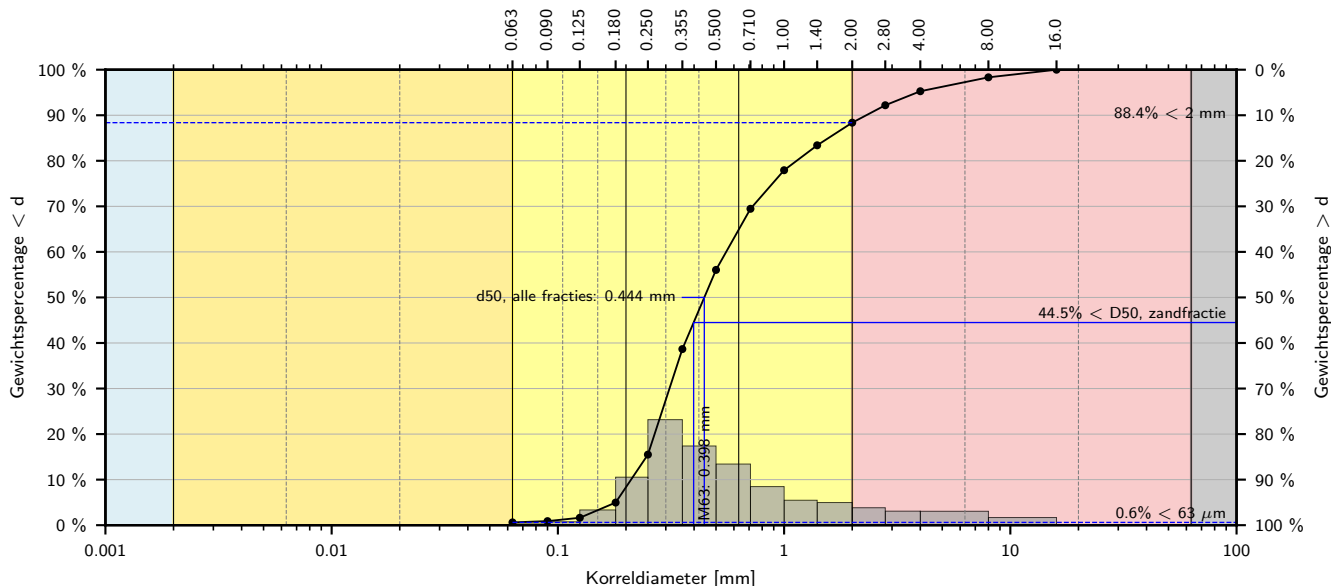
GEOLAB WIERTSEMA, TOLBERT



Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B23 (13954568-023)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1C16-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld
 van +0.00 tot -1.00 m. Maaiveld
 Laborant DW
 Beproeingsdatum 23-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling		gehele verdeling		zandfractie		Karakteristieken	
d [mm]	% < d	Kental	Waarde	Kental	Waarde		
16.0	100.00	d10	[mm] 0.211	D10	[mm] 0.207	Grind (2 - 63 mm)	[%] 11.6
8.0	98.32	d15	[mm] 0.246	D15	[mm] 0.237	Zand (63 μm - 2 mm)	[%] 87.8
4.0	95.27	d20	[mm] 0.268	D20	[mm] 0.260	Fijne delen (< 63 μm)	[%] 0.6
2.8	92.20	d30	[mm] 0.311	D30	[mm] 0.297	M ₆₃ Zandmediaan (M _z)	[mm] 0.398
2.000	88.37	d40	[mm] 0.364	D40	[mm] 0.340	middelgrof (300μm - 420μm)	
1.400	83.40	d50	[mm] 0.444	D50	[mm] 0.398	M ₂₀₀₀ Grindmediaan	[mm] 3.53
1.000	77.93	d60	[mm] 0.554	D60	[mm] 0.473	(M _g)	
0.710	69.46	d70	[mm] 0.726	D70	[mm] 0.585	M ₅₀	[mm] -
0.500	56.04	d80	[mm] 1.136	D80	[mm] 0.750	U ₁₆ (16 μm - 2 mm)	[-] -
0.355	38.66	d85	[mm] 1.570	D85	[mm] 0.896	U _{Zand} (63 μm - 2 mm)	[mm] 27.68
0.250	15.50	d90	[mm] 2.308	D90	[mm] 1.108	U-cijfer volgens formule van Zunker	
0.180	4.96	Cu	[-] 2.633	Cu _{zand}	[-] 2.291	F _m Fijnheidsmodulus	[-] 2.670
0.125	1.63	Cc	[-] 0.830	Cc _{zand}	[-] 0.904		
0.090	0.89	d90/d10	[-] 10.958	D90/D10	[-] 5.362		
Fijne delen 0.063	0.61						



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)

Korrelgrootteverdeling (NEN-EN-ISO 17892-4(2016))

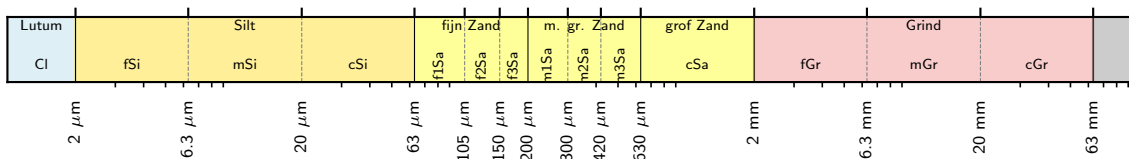
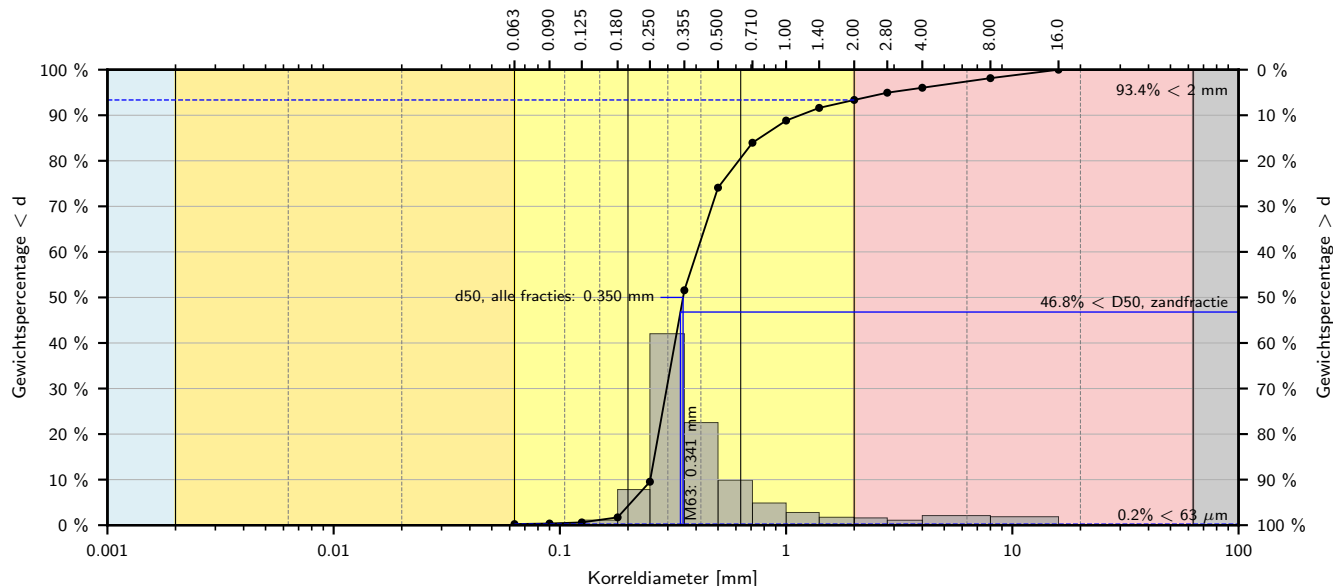
GEOLAB WIERTSEMA, TOLBERT



Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B24 (13954568-024)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1C24-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld
 van +0.00 tot -1.00 m. Maaiveld
 Laborant DW
 Beproeingsdatum 20-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling	
d [mm]	% < d
16.0	100.00
8.0	98.14
4.0	96.04
2.8	94.95
2.000	93.35
1.400	91.62
1.000	88.83
0.710	83.96
0.500	74.10
0.355	51.57
0.250	9.54
0.180	1.71
0.125	0.61
0.090	0.36
Fijne delen 0.063	0.24

gehele verdeling		
Kental		Waarde
d10	[mm]	0.251
d15	[mm]	0.262
d20	[mm]	0.273
d30	[mm]	0.297
d40	[mm]	0.322
d50	[mm]	0.350
d60	[mm]	0.404
d70	[mm]	0.470
d80	[mm]	0.617
d85	[mm]	0.764
d90	[mm]	1.152
Cu	[-]	1.608
Cc	[-]	0.868
d90/d10	[-]	4.589

zandfractie		
Kental		Waarde
D10	[mm]	0.250
D15	[mm]	0.260
D20	[mm]	0.270
D30	[mm]	0.292
D40	[mm]	0.316
D50	[mm]	0.341
D60	[mm]	0.380
D70	[mm]	0.438
D80	[mm]	0.511
D85	[mm]	0.603
D90	[mm]	0.714
Cu _{zand}	[-]	1.521
Cc _{zand}	[-]	0.897
D90/D10	[-]	2.856

Karakteristieken		
Grind (2 - 63 mm)	[%]	6.7
Zand (63 μm - 2 mm)	[%]	93.1
Fijne delen (< 63 μm)	[%]	0.2
M ₆₃ Zandmediaan (M _z)	[mm]	0.341
middelgrof (300 μm - 420 μm)		
M ₂₀₀₀ Grindmediaan (M _g)	[mm]	4.94
M ₅₀	[mm]	-
U ₁₆ (16 μm - 2 mm)	[-]	-
U _{Zand} (63 μm - 2 mm)	[mm]	28.98
U-cijfer volgens formule van Zunker		
F _m Fijnheidsmodulus	[-]	2.395



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)

Korrelgrootteverdeling (NEN-EN-ISO 17892-4(2016))

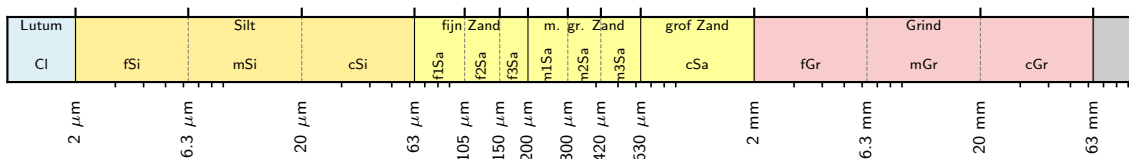
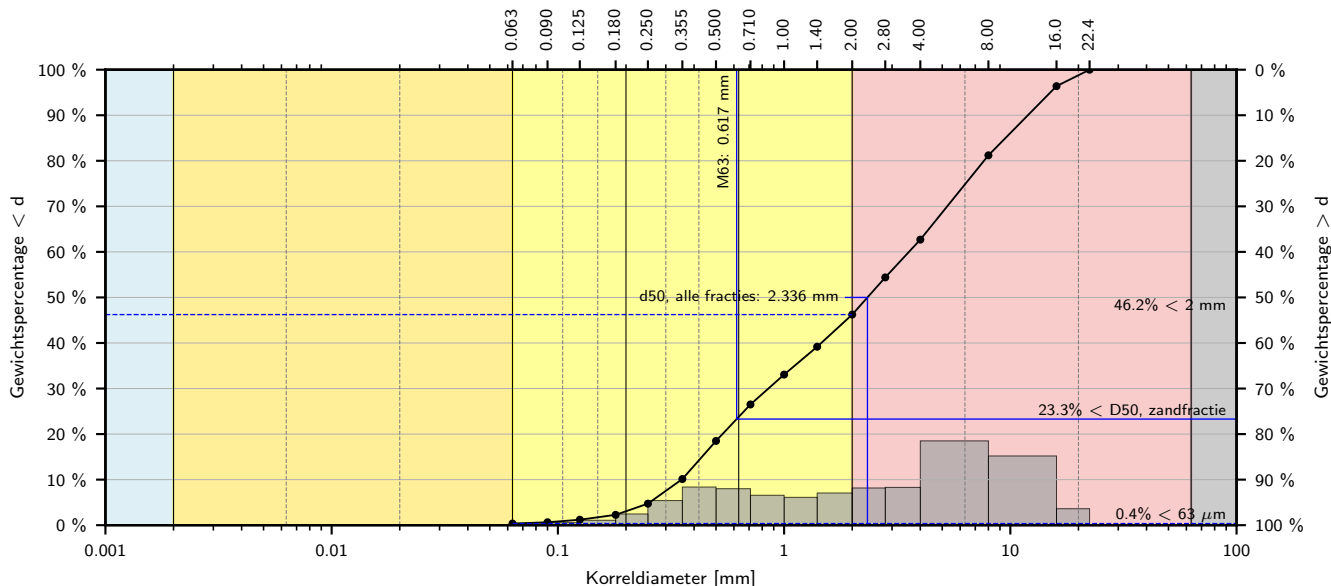
GEOLAB WIERTSEMA, TOLBERT



Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B25 (13954568-025)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1A24-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld
 van +0.00 tot -1.00 m. Maaiveld
 Laborant TR
 Beproevingsdatum 20-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling		gehele verdeling		zandfractie		Karakteristieken	
d [mm]	% < d	Kental	Waarde	Kental	Waarde		
22.4	100.00	d10	[mm] 0.352	D10	[mm] 0.254	Grind (2 - 63 mm)	[%] 53.8
16.0	96.39	d15	[mm] 0.433	D15	[mm] 0.294	Zand (63 μm - 2 mm)	[%] 45.9
8.0	81.20	d20	[mm] 0.534	D20	[mm] 0.342	Fijne delen (< 63 μm)	[%] 0.4
4.0	62.69	d30	[mm] 0.852	D30	[mm] 0.418	M ₆₃ Zandmediaan (M _z)	[mm] 0.617
2.8	54.40	d40	[mm] 1.459	D40	[mm] 0.505	middelgrof (420 μm - 630 μm)	
		d50	[mm] 2.336	D50	[mm] 0.617	M ₂₀₀₀ Grindmediaan	[mm] 5.91
2.000	46.24	d60	[mm] 3.562	D60	[mm] 0.763	(M _g)	
1.400	39.18	d70	[mm] 5.259	D70	[mm] 0.970	M ₅₀	[mm] -
1.000	33.07	d80	[mm] 7.649	D80	[mm] 1.246	U ₁₆ (16 μm - 2 mm)	[-] -
0.710	26.50	d85	[mm] 9.515	D85	[mm] 1.413	U _{Zand} (63 μm - 2 mm)	[mm] 21.09
0.500	18.50	d90	[mm] 11.954	D90	[mm] 1.586	U-cijfer volgens formule van Zunker	
0.355	10.13					F _m Fijnheidsmodulus	[-] 4.560
0.250	4.73	Cu	[-] 10.119	Cu _{zand}	[-] 3.009		
0.180	2.27	Cc	[-] 0.579	Cc _{zand}	[-] 0.903		
0.125	1.19	d90/d10	[-] 33.954	D90/D10	[-] 6.255		
0.090	0.64						
Fijne delen 0.063	0.36						



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)

Korrelgrootteverdeling (NEN-EN-ISO 17892-4(2016))

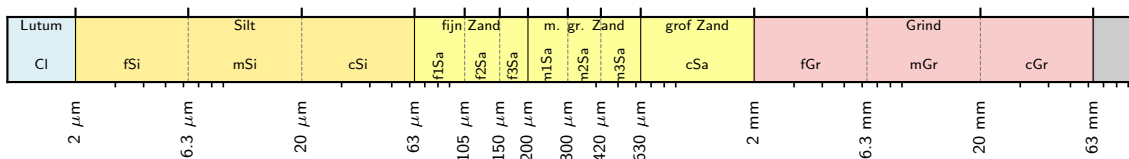
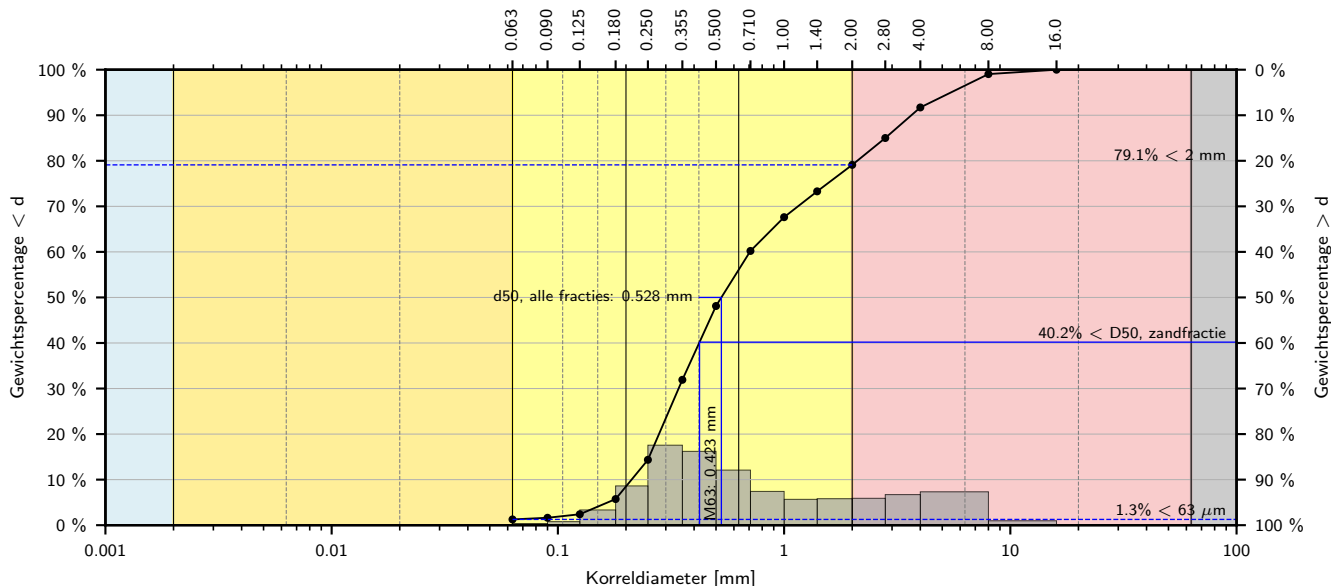
GEOLAB WIERTSEMA, TOLBERT



Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B26 (13954568-026)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1A15-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld
 van +0.00 tot -1.00 m. Maaiveld
 Laborant WK
 Beproeingsdatum 20-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling	
d [mm]	% < d
16.0	100.00
8.0	99.04
4.0	91.71
2.8	85.00
2.000	79.10
1.400	73.29
1.000	67.62
0.710	60.21
0.500	48.12
0.355	31.91
0.250	14.35
0.180	5.74
0.125	2.40
0.090	1.63
Fijne delen 0.063	1.26

gehele verdeling		
Kental	Waarde	
d10	[mm]	0.212
d15	[mm]	0.253
d20	[mm]	0.280
d30	[mm]	0.342
d40	[mm]	0.421
d50	[mm]	0.528
d60	[mm]	0.706
d70	[mm]	1.152
d80	[mm]	2.105
d85	[mm]	2.800
d90	[mm]	3.652
Cu	[-]	3.333
Cc	[-]	0.781
d90/d10	[-]	17.246

zandfractie		
Kental	Waarde	
D10	[mm]	0.204
D15	[mm]	0.237
D20	[mm]	0.263
D30	[mm]	0.307
D40	[mm]	0.359
D50	[mm]	0.423
D60	[mm]	0.498
D70	[mm]	0.624
D80	[mm]	0.828
D85	[mm]	0.991
D90	[mm]	1.245
Cu _{zand}	[-]	2.441
Cc _{zand}	[-]	0.925
D90/D10	[-]	6.098

Karakteristieken		
Grind (2 - 63 mm)	[%]	20.9
Zand (63 μm - 2 mm)	[%]	77.8
Fijne delen (< 63 μm)	[%]	1.3
M ₆₃ Zandmediaan (M _z)	[mm]	0.423
middelgrof (420 μm - 630 μm)		
M ₂₀₀₀ Grindmediaan (M _g)	[mm]	3.57
M ₅₀	[mm]	-
U ₁₆ (16 μm - 2 mm)	[-]	-
U _{Zand} (63 μm - 2 mm)	[mm]	27.08
U-cijfer volgens formule van Zunker		
F _m Fijnheidsmodulus	[-]	2.977



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer
31188389 (13954568)

Korrelgrootteverdeling
(NEN-EN-ISO 17892-4(2016))

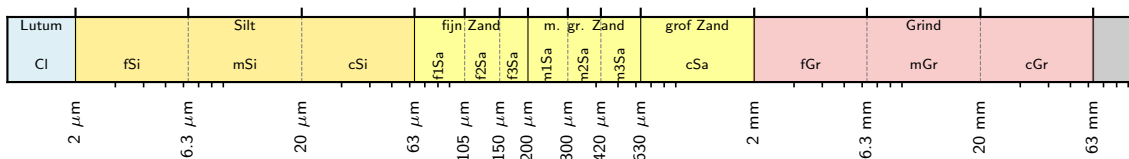
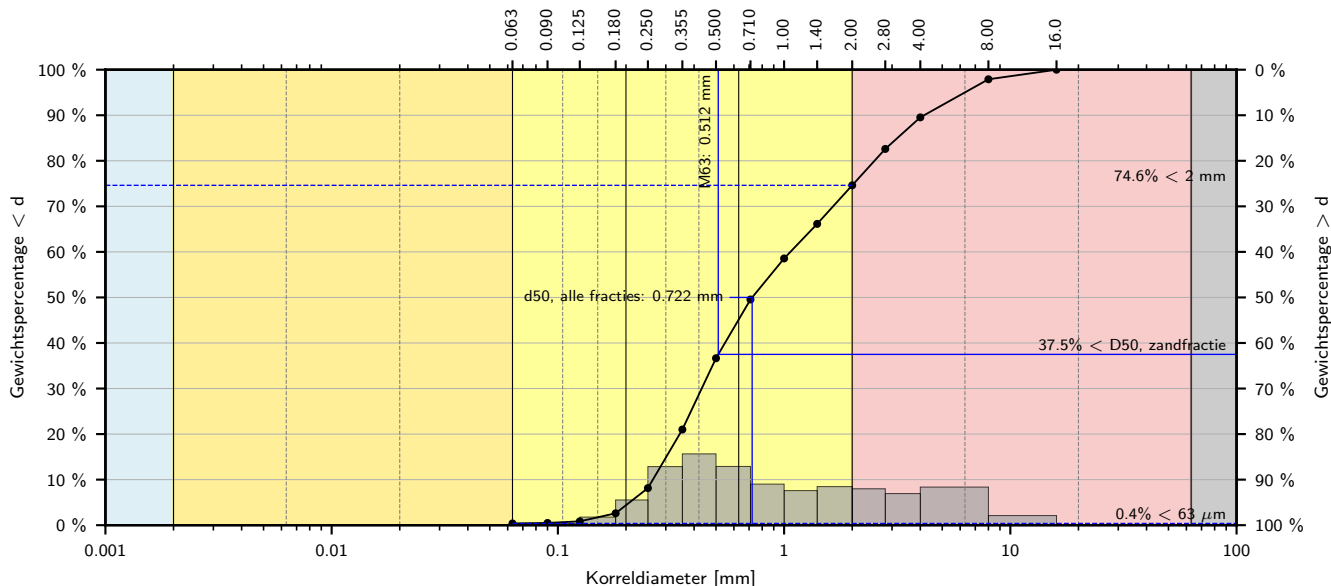
GEOLAB WIERTSEMA, TOLBERT



Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B27 (13954568-027)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1A7-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld
 van +0.00 tot -1.00 m. Maaiveld
 Laborant TR
 Beproeingsdatum 23-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling		gehele verdeling		zandfractie		Karakteristieken	
d [mm]	% < d	Kental	Waarde	Kental	Waarde		
16.0	100.00	d10	[mm] 0.263	D10	[mm] 0.245	Grind (2 - 63 mm)	[%] 25.4
8.0	97.90	d15	[mm] 0.301	D15	[mm] 0.274	Zand (63 μm - 2 mm)	[%] 74.2
4.0	89.54	d20	[mm] 0.345	D20	[mm] 0.303	Fijne delen (< 63 μm)	[%] 0.4
2.8	82.60	d30	[mm] 0.432	D30	[mm] 0.368	M ₆₃ Zandmediaan (M _z)	[mm] 0.512
2.000	74.62	d40	[mm] 0.548	D40	[mm] 0.433	middelgrof (420 μm - 630 μm)	
1.400	66.15	d50	[mm] 0.722	D50	[mm] 0.512	M ₂₀₀₀ Grindmediaan	[mm] 3.57
1.000	58.56	d60	[mm] 1.066	D60	[mm] 0.626	(M _g)	
0.710	49.55	d70	[mm] 1.647	D70	[mm] 0.790	M ₅₀	[mm] -
0.500	36.65	d80	[mm] 2.509	D80	[mm] 1.055	U ₁₆ (16 μm - 2 mm)	[-] -
0.355	21.00	d85	[mm] 3.168	D85	[mm] 1.244	U _{Zand} (63 μm - 2 mm)	[mm] 22.58
0.250	8.14	d90	[mm] 4.157	D90	[mm] 1.463	U-cijfer volgens formule van Zunker	
0.180	2.61	Cu	[-] 4.053	Cu _{zand}	[-] 2.556	F _m Fijnheidsmodulus	[-] 3.338
0.125	0.84	Cc	[-] 0.667	Cc _{zand}	[-] 0.883		
0.090	0.49	d90/d10	[-] 15.806	D90/D10	[-] 5.971		
Fijne delen 0.063	0.38						



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)

Korrelgrootteverdeling (NEN-EN-ISO 17892-4(2016))

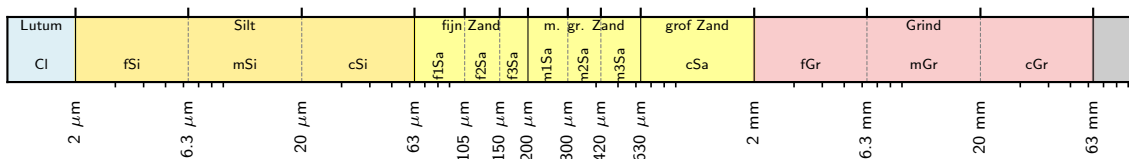
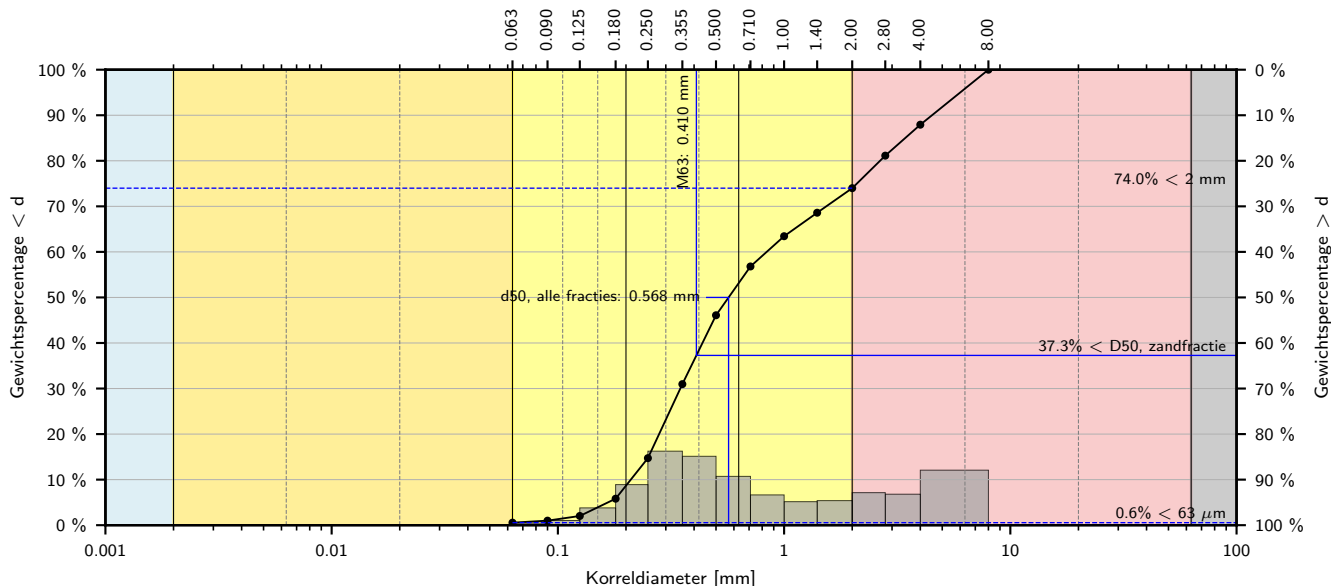
GEOLAB WIERTSEMA, TOLBERT



Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B28 (13954568-028)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1A2-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld
 van +0.00 tot -1.00 m. Maaiveld
 Laborant DW
 Beproeingsdatum 23-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling	
d [mm]	% < d
8.0	100.00
4.0	87.93
2.8	81.13
<hr/>	
2.000	73.99
1.400	68.60
1.000	63.44
0.710	56.80
0.500	46.09
0.355	30.97
0.250	14.72
0.180	5.82
0.125	2.02
0.090	0.99
<hr/>	
Fijne delen 0.063	0.55

gehele verdeling		
Kental		Waarde
d10	[mm]	0.210
d15	[mm]	0.252
d20	[mm]	0.280
d30	[mm]	0.348
d40	[mm]	0.436
d50	[mm]	0.568
d60	[mm]	0.837
d70	[mm]	1.536
d80	[mm]	2.655
d85	[mm]	3.431
d90	[mm]	4.506
Cu	[-]	3.987
Cc	[-]	0.687
d90/d10	[-]	21.451

zandfractie		
Kental		Waarde
D10	[mm]	0.194
D15	[mm]	0.223
D20	[mm]	0.253
D30	[mm]	0.296
D40	[mm]	0.347
D50	[mm]	0.410
D60	[mm]	0.484
D70	[mm]	0.606
D80	[mm]	0.808
D85	[mm]	0.976
D90	[mm]	1.232
Cu _{zand}	[-]	2.488
Cc _{zand}	[-]	0.934
D90/D10	[-]	6.341

Karakteristieken		
Grind (2 - 63 mm)	[%]	26.0
Zand (63 μm - 2 mm)	[%]	73.4
Fijne delen (< 63 μm)	[%]	0.6
M ₆₃ Zandmediaan (M _z)	[mm]	0.410
middelgrof (300μm - 420μm)		
M ₂₀₀₀ Grindmediaan (M _g)	[mm]	3.81
M ₅₀	[mm]	-
U ₁₆ (16 μm - 2 mm)	[-]	-
U _{Zand} (63 μm - 2 mm)	[mm]	28.28
U-cijfer volgens formule van Zunker		
F _m Fijnheidsmodulus	[-]	3.119



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)

Korrelgrootteverdeling (NEN-EN-ISO 17892-4(2016))

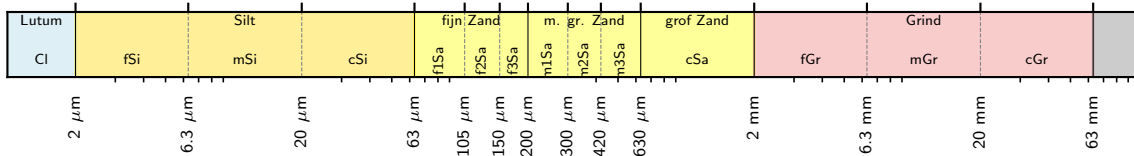
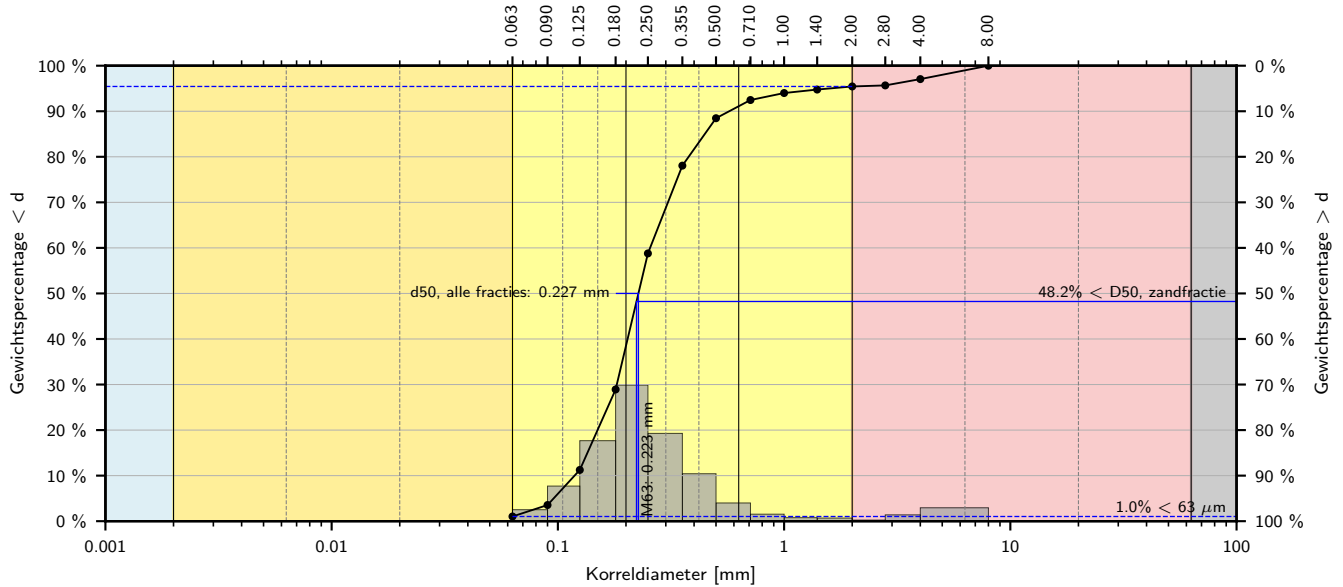
GEOLAB WIERTSEMA, TOLBERT



Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B29 (13954568-029)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1A22-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld
 van +0.00 tot -1.00 m. Maaiveld
 Laborant TR
 Beproevingsdatum 23-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling		gehele verdeling		zandfractie		Karakteristieken	
d [mm]	% < d	Kental	Waarde	Kental	Waarde		
8.0	100.00	d10	[mm] 0.119	D10	[mm] 0.121	Grind (2 - 63 mm)	[%] 4.6
4.0	97.06	d15	[mm] 0.135	D15	[mm] 0.136	Zand (63 μm - 2 mm)	[%] 94.4
2.8	95.67	d20	[mm] 0.150	D20	[mm] 0.149	Fijne delen (< 63 μm)	[%] 1.0
2.000	95.44	d30	[mm] 0.182	D30	[mm] 0.181	M ₆₃ Zandmediaan (M _z)	[mm] 0.223
1.400	94.76	d40	[mm] 0.203	D40	[mm] 0.201	middelgrof (200 μm - 300 μm)	
1.000	94.00	d50	[mm] 0.227	D50	[mm] 0.223	M ₂₀₀₀ Grindmediaan	[mm] 4.68
0.710	92.46	d60	[mm] 0.256	D60	[mm] 0.247	(M _g)	
0.500	88.47	d70	[mm] 0.307	D70	[mm] 0.291	M ₅₀	[mm] -
0.355	78.06	d80	[mm] 0.378	D80	[mm] 0.345	U ₁₆ (16 μm - 2 mm)	[-] -
0.250	58.78	d85	[mm] 0.446	D85	[mm] 0.395	U _{Zand} (63 μm - 2 mm)	[mm] 49.35
0.180	28.92	d90	[mm] 0.572	D90	[mm] 0.461	U-cijfer volgens formule van Zunker	
0.125	11.25	Cu	[-] 2.157	Cu _{zand}	[-] 2.042	F _m Fijnheidsmodulus	[-] 1.550
0.090	3.55	Cc	[-] 1.095	Cc _{zand}	[-] 1.095		
Fijne delen 0.063	1.03	d90/d10	[-] 4.825	D90/D10	[-] 3.812		



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)

Korrelgrootteverdeling (NEN-EN-ISO 17892-4(2016))

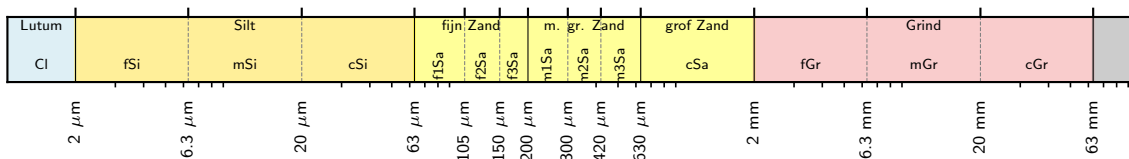
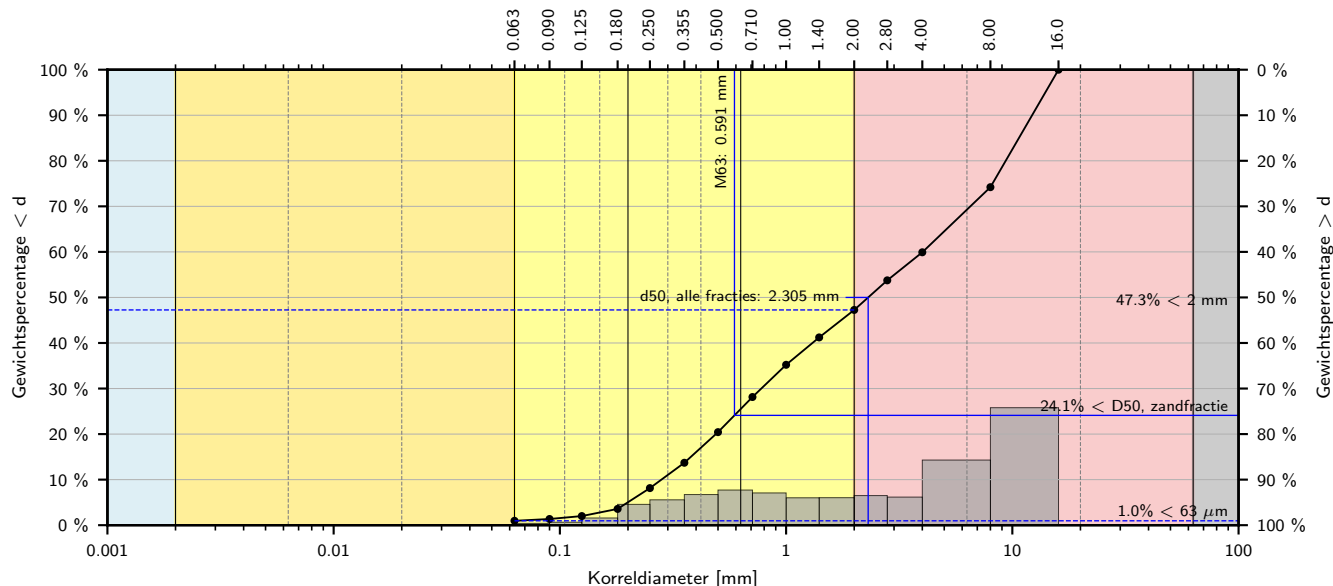
GEOLAB WIERTSEMA, TOLBERT



Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B30 (13954568-030)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1A13-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld
 van +0.00 tot -1.00 m. Maaiveld
 Laborant TR
 Beproeingsdatum 23-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling	
d [mm]	% < d
16.0	100.00
8.0	74.21
4.0	59.91
2.8	53.75
2.000	47.26
1.400	41.22
1.000	35.21
0.710	28.14
0.500	20.43
0.355	13.70
0.250	8.14
0.180	3.57
0.125	2.00
0.090	1.36
Fijne delen 0.063	0.96

gehele verdeling		
Kental		Waarde
d10	[mm]	0.281
d15	[mm]	0.379
d20	[mm]	0.489
d30	[mm]	0.777
d40	[mm]	1.307
d50	[mm]	2.305
d60	[mm]	4.017
d70	[mm]	6.523
d80	[mm]	9.347
d85	[mm]	10.692
d90	[mm]	12.229
Cu	[-]	14.289
Cc	[-]	0.535
d90/d10	[-]	43.506

zandfractie		
Kental		Waarde
D10	[mm]	0.208
D15	[mm]	0.246
D20	[mm]	0.285
D30	[mm]	0.376
D40	[mm]	0.476
D50	[mm]	0.591
D60	[mm]	0.731
D70	[mm]	0.915
D80	[mm]	1.169
D85	[mm]	1.330
D90	[mm]	1.521
Cu _{zand}	[-]	3.512
Cc _{zand}	[-]	0.931
D90/D10	[-]	7.310

Karakteristieken		
Grind (2 - 63 mm)	[%]	52.7
Zand (63 μm - 2 mm)	[%]	46.3
Fijne delen (< 63 μm)	[%]	1.0
M ₆₃ Zandmediaan (M _z)	[mm]	0.591
middelgrof (420 μm - 630 μm)		
M ₂₀₀₀ Grindmediaan (M _g)	[mm]	7.78
M ₅₀	[mm]	-
U ₁₆ (16 μm - 2 mm)	[-]	-
U _{Zand} (63 μm - 2 mm)	[mm]	23.44
U-cijfer volgens formule van Zunker		
F _m Fijnheidsmodulus	[-]	4.529



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer
31188389 (13954568)

Korrelgrootteverdeling
(NEN-EN-ISO 17892-4(2016))

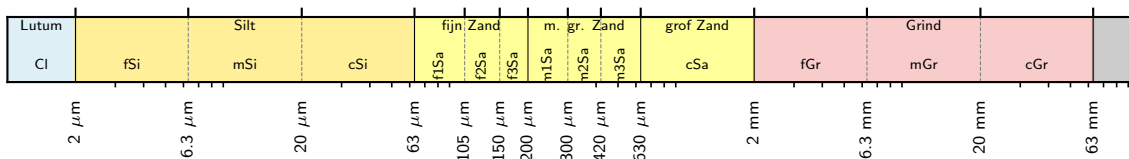
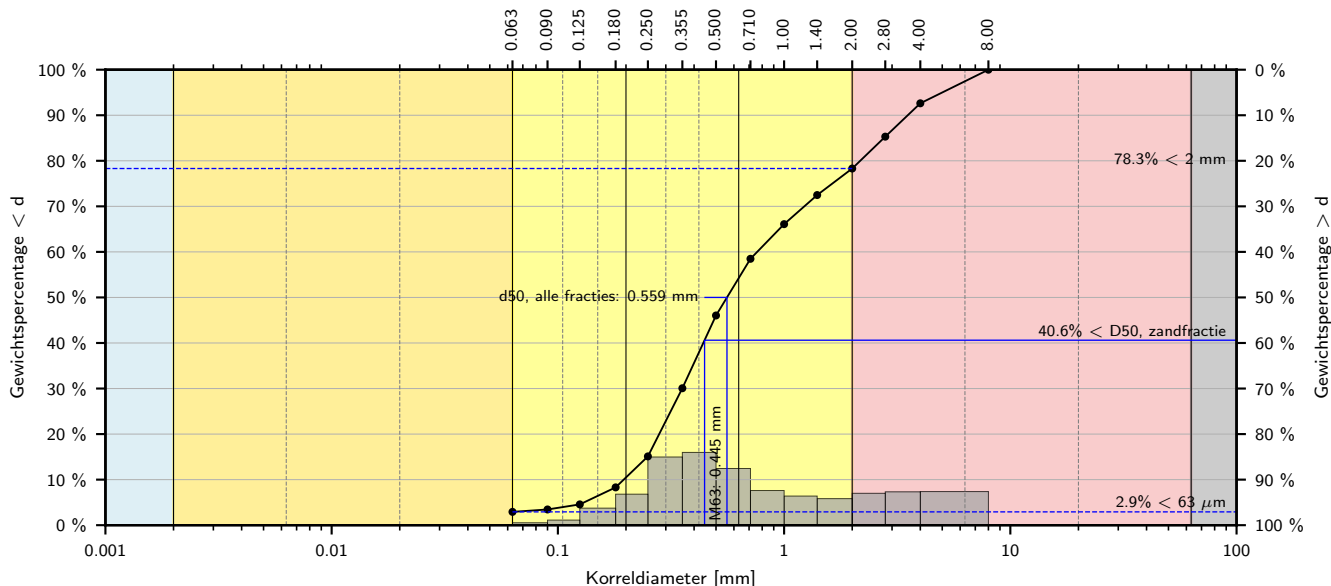
GEOLAB WIERTSEMA, TOLBERT



Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B31 (13954568-031)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1A19-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld
 van +0.00 tot -1.00 m. Maaiveld
 Laborant DW
 Beproeingsdatum 23-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling	
d [mm]	% < d
8.0	100.00
4.0	92.62
2.8	85.30
<hr/>	
2.000	78.30
1.400	72.48
1.000	66.09
0.710	58.48
0.500	46.04
0.355	30.06
0.250	15.10
0.180	8.30
0.125	4.56
0.090	3.45
<hr/>	
Fijne delen 0.063	2.92

gehele verdeling		
Kental		Waarde
d10	[mm]	0.195
d15	[mm]	0.249
d20	[mm]	0.280
d30	[mm]	0.354
d40	[mm]	0.439
d50	[mm]	0.559
d60	[mm]	0.760
d70	[mm]	1.229
d80	[mm]	2.170
d85	[mm]	2.760
d90	[mm]	3.520
Cu	[-]	3.890
Cc	[-]	0.846
d90/d10	[-]	18.014

zandfractie		
Kental		Waarde
D10	[mm]	0.200
D15	[mm]	0.240
D20	[mm]	0.268
D30	[mm]	0.319
D40	[mm]	0.379
D50	[mm]	0.445
D60	[mm]	0.531
D70	[mm]	0.656
D80	[mm]	0.879
D85	[mm]	1.049
D90	[mm]	1.279
Cu _{zand}	[-]	2.656
Cc _{zand}	[-]	0.961
D90/D10	[-]	6.403

Karakteristieken		
Grind (2 - 63 mm)	[%]	21.7
Zand (63 μm - 2 mm)	[%]	75.4
Fijne delen (< 63 μm)	[%]	2.9
M ₆₃ Zandmediaan (M _z)	[mm]	0.445
middelgrof (420 μm - 630 μm)		
M ₂₀₀₀ Grindmediaan (M _g)	[mm]	3.38
M ₅₀	[mm]	-
U ₁₆ (16 μm - 2 mm)	[-]	-
U _{Zand} (63 μm - 2 mm)	[mm]	26.85
U-cijfer volgens formule van Zunker		
F _m Fijnheidsmodulus	[-]	2.973



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)

Korrelgrootteverdeling (NEN-EN-ISO 17892-4(2016))

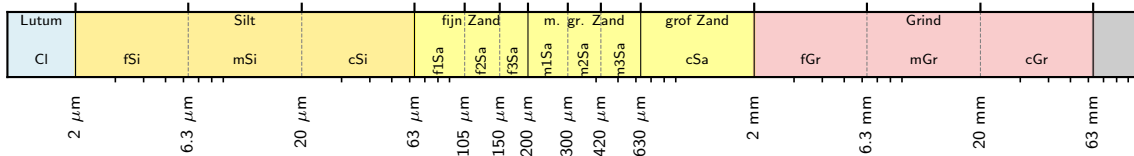
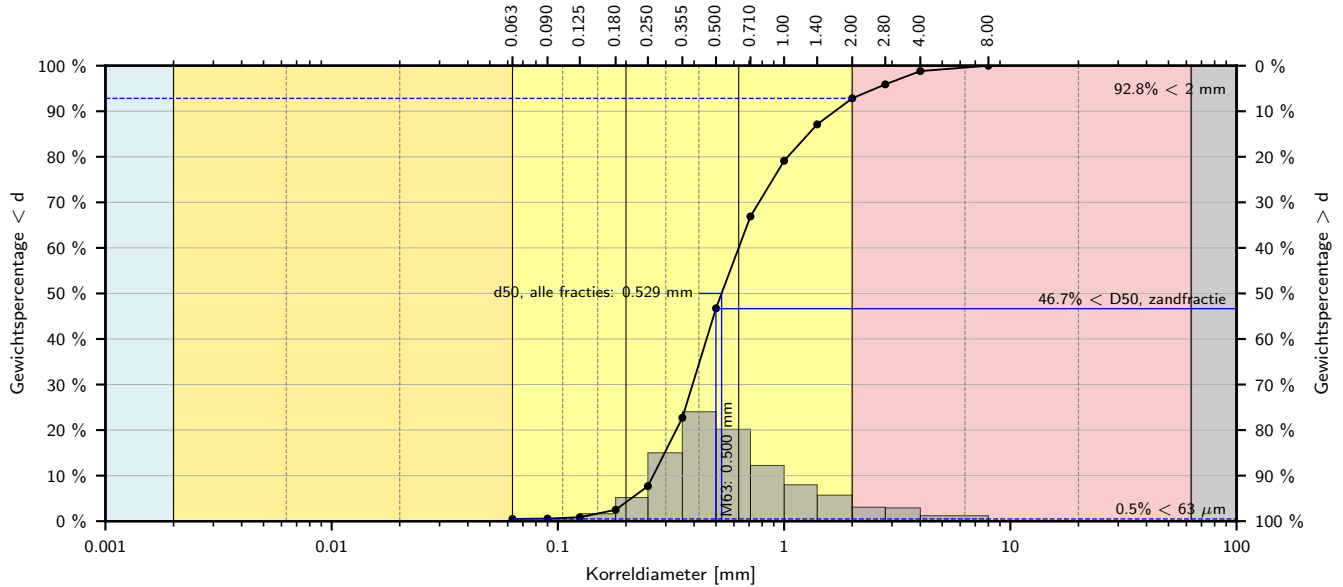
GEOLAB WIERTSEMA, TOLBERT



Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B32 (13954568-032)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1A11-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld
 van +0.00 tot -1.00 m. Maaiveld
 Laborant DW
 Beproevingdatum 23-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling		gehele verdeling		zandfractie		Karakteristieken	
d [mm]	% < d	Kental	Waarde	Kental	Waarde		
8.0	100.00	d10	[mm] 0.264	D10	[mm] 0.262	Grind (2 - 63 mm)	[%] 7.2
4.0	98.81	d15	[mm] 0.297	D15	[mm] 0.292	Zand (63 μm - 2 mm)	[%] 92.3
2.8	95.90	d20	[mm] 0.333	D20	[mm] 0.325	Fijne delen (< 63 μm)	[%] 0.5
2.000	92.83	d30	[mm] 0.394	D30	[mm] 0.384	M ₆₃ Zandmediaan (M _z)	[mm] 0.500
1.400	87.12	d40	[mm] 0.454	D40	[mm] 0.438	middelgrof (420 μm - 630 μm)	
1.000	79.13	d50	[mm] 0.529	D50	[mm] 0.500	M ₂₀₀₀ Grindmediaan	[mm] 2.98
0.710	66.90	d60	[mm] 0.630	D60	[mm] 0.586	(M _g)	
0.500	46.72	d70	[mm] 0.774	D70	[mm] 0.688	M ₅₀	[mm] -
0.355	22.70	d80	[mm] 1.037	D80	[mm] 0.875	U ₁₆ (16 μm - 2 mm)	[-] -
0.250	7.69	d85	[mm] 1.281	D85	[mm] 0.996	U _{Zand} (63 μm - 2 mm)	[mm] 22.33
0.180	2.50	d90	[mm] 1.676	D90	[mm] 1.207	U-cijfer volgens formule van Zunker	
0.125	0.86	Cu	[-] 2.387	Cu _{zand}	[-] 2.237	F _m Fijnheidsmodulus	
0.090	0.57	Cc	[-] 0.934	Cc _{zand}	[-] 0.959	[-] 2.740	
Fijne delen 0.063	0.49	d90/d10	[-] 6.353	D90/D10	[-] 4.604		



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)

Korrelgrootteverdeling (NEN-EN-ISO 17892-4(2016))

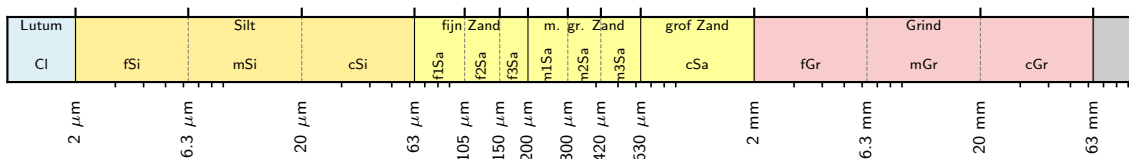
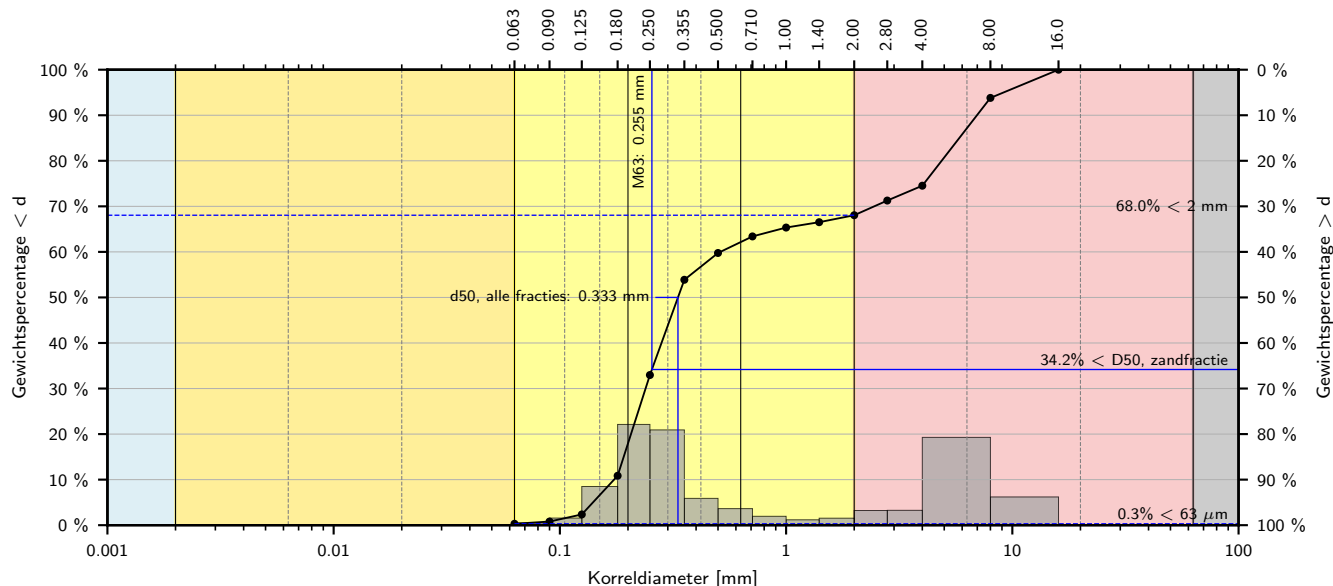
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Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B33 (13954568-033)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1A17-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld
 van +0.00 tot -1.00 m. Maaiveld
 Laborant TR
 Beproeingsdatum 23-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling		gehele verdeling		zandfractie		Karakteristieken	
d [mm]	% < d	Kental	Waarde	Kental	Waarde		
16.0	100.00	d10	[mm] 0.174	D10	[mm] 0.153	Grind (2 - 63 mm)	[%] 31.9
8.0	93.81	d15	[mm] 0.191	D15	[mm] 0.177	Zand (63 μm - 2 mm)	[%] 67.7
4.0	74.53	d20	[mm] 0.206	D20	[mm] 0.188	Fijne delen (< 63 μm)	[%] 0.3
2.8	71.27	d30	[mm] 0.239	D30	[mm] 0.208	M ₆₃ Zandmediaan (M _z)	[mm] 0.255
2.000	68.05	d40	[mm] 0.281	D40	[mm] 0.230	middelgrof (200μm - 300μm)	
1.400	66.52	d50	[mm] 0.333	D50	[mm] 0.255	M ₂₀₀₀ Grindmediaan	[mm] 5.63
1.000	65.34	d60	[mm] 0.512	D60	[mm] 0.286	(M _g)	
0.710	63.40	d70	[mm] 2.452	D70	[mm] 0.320	M ₅₀	[mm] -
0.500	59.76	d80	[mm] 4.869	D80	[mm] 0.368	U ₁₆ (16 μm - 2 mm)	[-] -
0.355	53.88	d85	[mm] 5.829	D85	[mm] 0.448	U _{Zand} (63 μm - 2 mm)	[mm] 41.03
0.250	32.97	d90	[mm] 6.977	D90	[mm] 0.579	U-cijfer volgens formule van Zunker	
0.180	10.85	Cu	[-] 2.948	Cu _{zand}	[-] 1.867	F _m Fijnheidsmodulus	[-] 3.032
0.125	2.36	Cc	[-] 0.644	Cc _{zand}	[-] 0.990		
0.090	0.80	d90/d10	[-] 40.196	D90/D10	[-] 3.779		
Fijne delen 0.063	0.31						



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)

Korrelgrootteverdeling (NEN-EN-ISO 17892-4(2016))

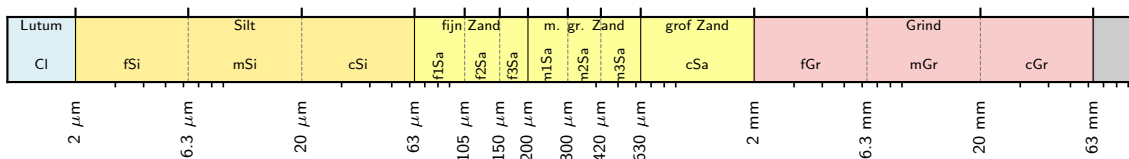
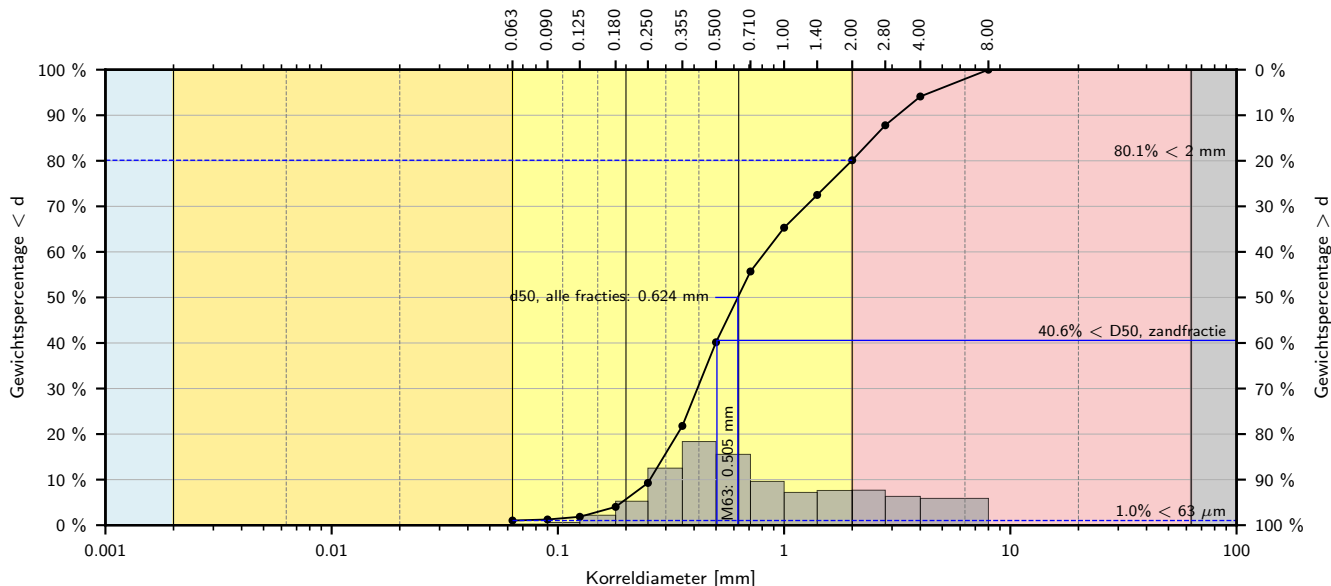
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Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B34 (13954568-034)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1A23-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld
 van +0.00 tot -1.00 m. Maaiveld
 Laborant TR
 Beproevingdatum 23-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling	
d [mm]	% < d
8.0	100.00
4.0	94.12
2.8	87.80
<hr/>	
2.000	80.12
1.400	72.50
1.000	65.31
0.710	55.70
0.500	40.15
0.355	21.79
0.250	9.27
0.180	4.02
0.125	1.84
0.090	1.25
<hr/>	
Fijne delen 0.063	1.02

gehele verdeling		
Kental		Waarde
d10	[mm]	0.255
d15	[mm]	0.294
d20	[mm]	0.338
d30	[mm]	0.414
d40	[mm]	0.499
d50	[mm]	0.624
d60	[mm]	0.828
d70	[mm]	1.245
d80	[mm]	1.989
d85	[mm]	2.477
d90	[mm]	3.170
Cu	[-]	3.244
Cc	[-]	0.811
d90/d10	[-]	12.425

zandfractie		
Kental		Waarde
D10	[mm]	0.245
D15	[mm]	0.277
D20	[mm]	0.309
D30	[mm]	0.375
D40	[mm]	0.435
D50	[mm]	0.505
D60	[mm]	0.603
D70	[mm]	0.728
D80	[mm]	0.965
D85	[mm]	1.148
D90	[mm]	1.381
Cu _{zand}	[-]	2.465
Cc _{zand}	[-]	0.953
D90/D10	[-]	5.643

Karakteristieken		
Grind (2 - 63 mm)	[%]	19.9
Zand (63 μm - 2 mm)	[%]	79.1
Fijne delen (< 63 μm)	[%]	1.0
M ₆₃ Zandmediaan (M _z)	[mm]	0.505
middelgrof (420 μm - 630 μm)		
M ₂₀₀₀ Grindmediaan (M _g)	[mm]	3.18
M ₅₀	[mm]	-
U ₁₆ (16 μm - 2 mm)	[-]	-
U _{Zand} (63 μm - 2 mm)	[mm]	23.07
U-cijfer volgens formule van Zunker		
F _m Fijnheidsmodulus	[-]	3.092



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)

Korrelgrootteverdeling (NEN-EN-ISO 17892-4(2016))

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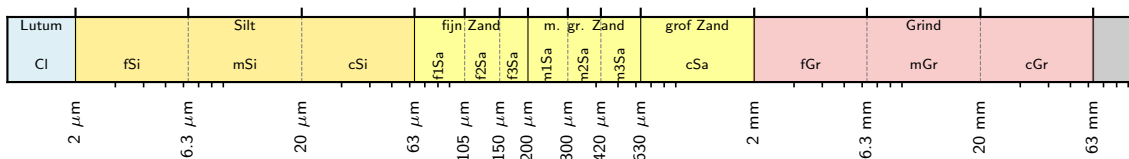
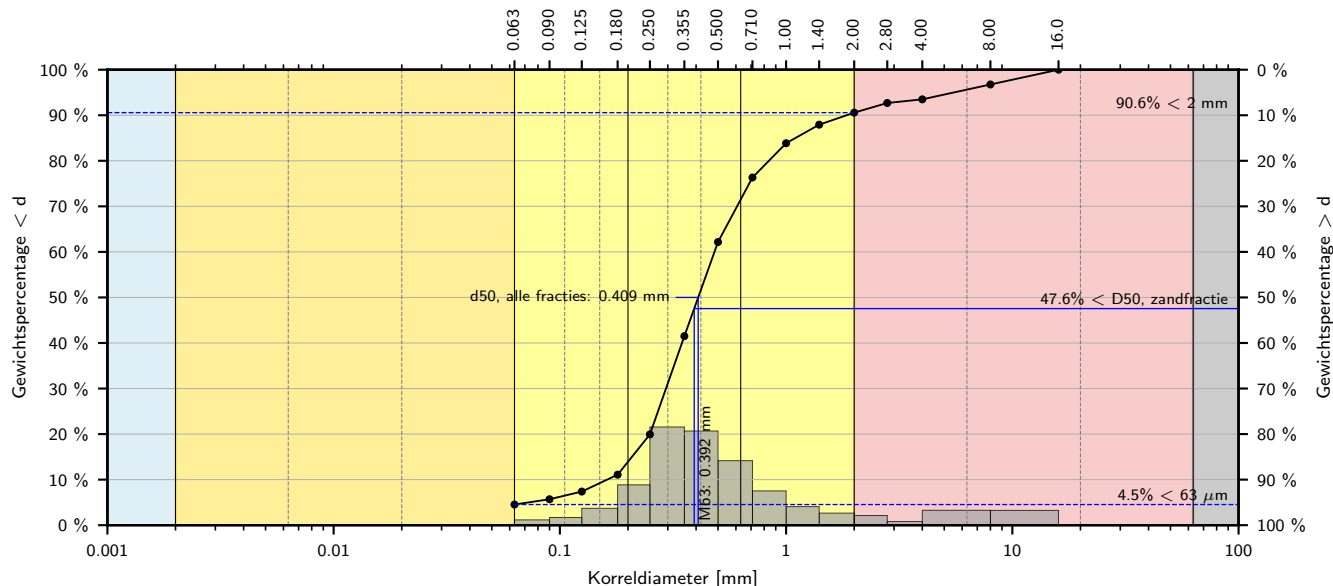


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Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B35 (13954568-035)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1A12-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld
 van +0.00 tot -1.00 m. Maaiveld
 Laborant TR
 Beproeingsdatum 23-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling	
d [mm]	% < d
16.0	100.00
8.0	96.76
4.0	93.49
2.8	92.69
2.000	90.57
1.400	87.93
1.000	83.86
0.710	76.33
0.500	62.17
0.355	41.49
0.250	19.93
0.180	11.08
0.125	7.38
0.090	5.69
Fijne delen 0.063 4.53	

gehele verdeling		
Kental		Waarde
d10	[mm]	0.162
d15	[mm]	0.208
d20	[mm]	0.250
d30	[mm]	0.294
d40	[mm]	0.346
d50	[mm]	0.409
d60	[mm]	0.482
d70	[mm]	0.607
d80	[mm]	0.839
d85	[mm]	1.099
d90	[mm]	1.851
Cu	[-]	2.981
Cc	[-]	1.111
d90/d10	[-]	11.443

zandfractie		
Kental		Waarde
D10	[mm]	0.194
D15	[mm]	0.228
D20	[mm]	0.257
D30	[mm]	0.296
D40	[mm]	0.341
D50	[mm]	0.392
D60	[mm]	0.453
D70	[mm]	0.533
D80	[mm]	0.660
D85	[mm]	0.755
D90	[mm]	0.918
Cu _{zand}	[-]	2.330
Cc _{zand}	[-]	0.997
D90/D10	[-]	4.724

Karakteristieken		
Grind (2 - 63 mm)	[%]	9.4
Zand (63 μm - 2 mm)	[%]	86.0
Fijne delen (< 63 μm)	[%]	4.5
M ₆₃ Zandmediaan (M _z)	[mm]	0.392
middelgrof (300 μm - 420 μm)		
M ₂₀₀₀ Grindmediaan (M _g)	[mm]	5.86
M ₅₀	[mm]	-
U ₁₆ (16 μm - 2 mm)	[-]	-
U _{Zand} (63 μm - 2 mm)	[mm]	30.01
U-cijfer volgens formule van Zunker		
F _m Fijnheidsmodulus	[-]	2.457



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)

Korrelgrootteverdeling (NEN-EN-ISO 17892-4(2016))

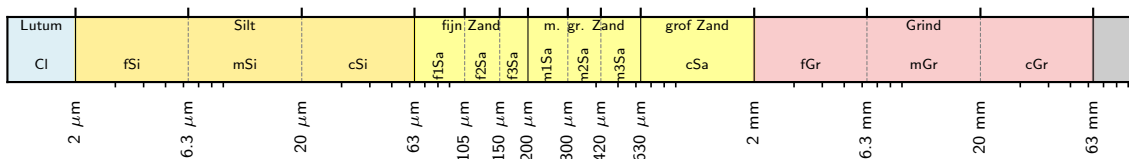
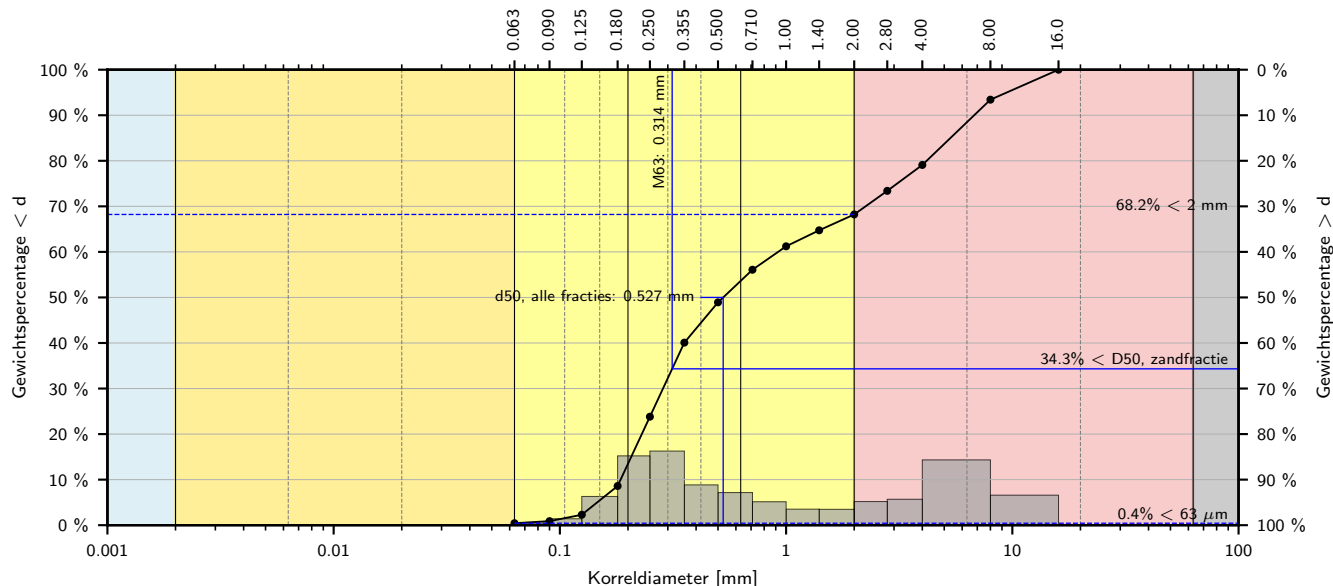
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Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B36 (13954568-036)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1A5-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld
 van +0.00 tot -1.00 m. Maaiveld
 Laborant DW
 Beproeingsdatum 23-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling	
d [mm]	% < d
16.0	100.00
8.0	93.42
4.0	79.09
2.8	73.40
2.000	68.22
1.400	64.74
1.000	61.22
0.710	56.08
0.500	48.92
0.355	40.08
0.250	23.81
0.180	8.60
0.125	2.29
0.090	0.88
Fijne delen 0.063 0.43	

gehele verdeling		
Kental		Waarde
d10	[mm]	0.186
d15	[mm]	0.207
d20	[mm]	0.230
d30	[mm]	0.286
d40	[mm]	0.354
d50	[mm]	0.527
d60	[mm]	0.922
d70	[mm]	2.245
d80	[mm]	4.181
d85	[mm]	5.324
d90	[mm]	6.781
Cu	[-]	4.968
Cc	[-]	0.477
d90/d10	[-]	36.551

zandfractie		
Kental		Waarde
D10	[mm]	0.166
D15	[mm]	0.188
D20	[mm]	0.202
D30	[mm]	0.234
D40	[mm]	0.271
D50	[mm]	0.314
D60	[mm]	0.369
D70	[mm]	0.480
D80	[mm]	0.662
D85	[mm]	0.810
D90	[mm]	1.021
Cu _{zand}	[-]	2.224
Cc _{zand}	[-]	0.893
D90/D10	[-]	6.146

Karakteristieken		
Grind (2 - 63 mm)	[%]	31.8
Zand (63 μm - 2 mm)	[%]	67.8
Fijne delen (< 63 μm)	[%]	0.4
M ₆₃ Zandmediaan (M _z)	[mm]	0.314
middelgrof (300μm - 420μm)		
M ₂₀₀₀ Grindmediaan (M _g)	[mm]	5.10
M ₅₀	[mm]	-
U ₁₆ (16 μm - 2 mm)	[-]	-
U _{Zand} (63 μm - 2 mm)	[mm]	34.37
U-cijfer volgens formule van Zunker		
F _m Fijnheidsmodulus	[-]	3.231



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)

Korrelgrootteverdeling (NEN-EN-ISO 17892-4(2016))

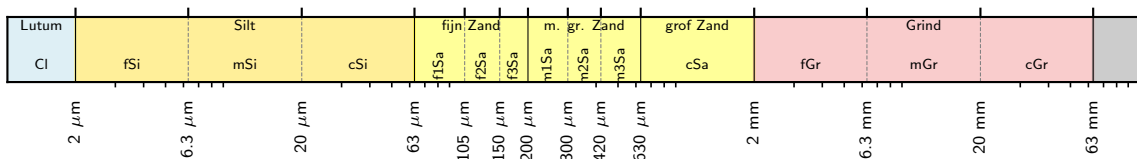
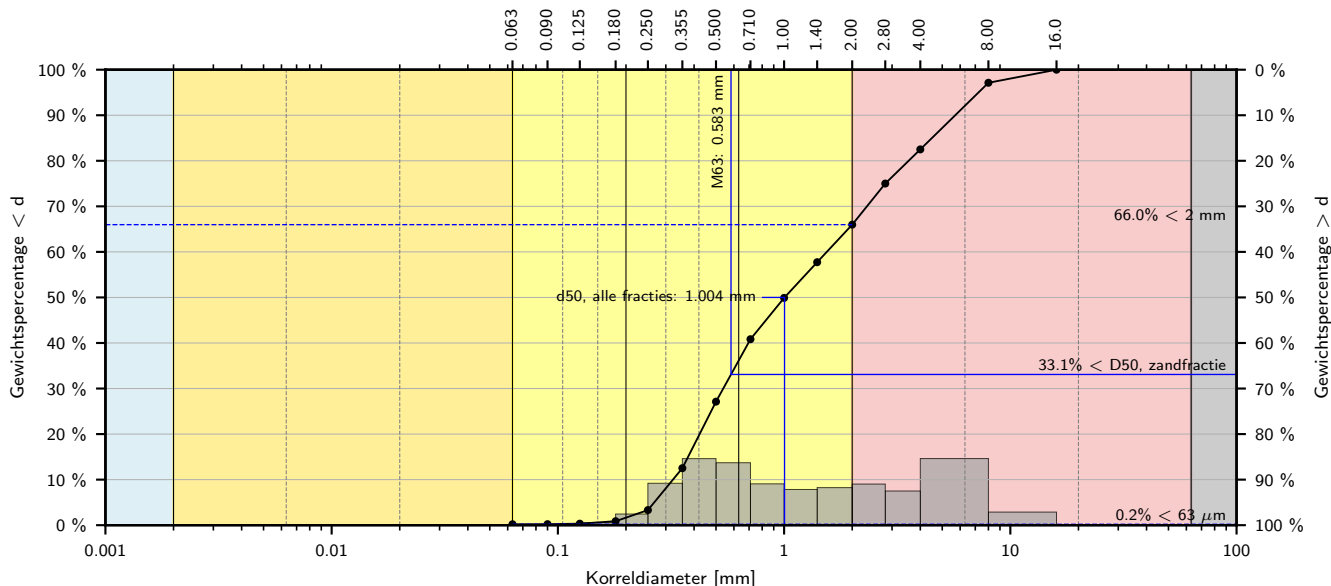
GEOLAB WIERTSEMA, TOLBERT



Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B37 (13954568-037)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1A6-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld
 van +0.00 tot -1.00 m. Maaiveld
 Laborant TR
 Beproeingsdatum 23-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling	
d [mm]	% < d
16.0	100.00
8.0	97.13
4.0	82.50
2.8	75.00
2.000	65.98
1.400	57.74
1.000	49.90
0.710	40.83
0.500	27.12
0.355	12.51
0.250	3.31
0.180	0.87
0.125	0.33
0.090	0.22
Fijne delen 0.063	0.20

gehele verdeling		
Kental		Waarde
d10	[mm]	0.323
d15	[mm]	0.376
d20	[mm]	0.423
d30	[mm]	0.538
d40	[mm]	0.695
d50	[mm]	1.004
d60	[mm]	1.544
d70	[mm]	2.323
d80	[mm]	3.551
d85	[mm]	4.503
d90	[mm]	5.707
Cu	[-]	4.786
Cc	[-]	0.582
d90/d10	[-]	17.691

zandfractie		
Kental		Waarde
D10	[mm]	0.285
D15	[mm]	0.323
D20	[mm]	0.362
D30	[mm]	0.422
D40	[mm]	0.493
D50	[mm]	0.583
D60	[mm]	0.689
D70	[mm]	0.871
D80	[mm]	1.134
D85	[mm]	1.306
D90	[mm]	1.505
Cu _{zand}	[-]	2.416
Cc _{zand}	[-]	0.908
D90/D10	[-]	5.274

Karakteristieken		
Grind (2 - 63 mm)	[%]	34.0
Zand (63 μm - 2 mm)	[%]	65.8
Fijne delen (< 63 μm)	[%]	0.2
M ₆₃ Zandmediaan (M _z)	[mm]	0.583
middelgrof (420 μm - 630 μm)		
M ₂₀₀₀ Grindmediaan (M _g)	[mm]	4.09
M ₅₀	[mm]	-
U ₁₆ (16 μm - 2 mm)	[-]	-
U _{Zand} (63 μm - 2 mm)	[mm]	19.45
U-cijfer volgens formule van Zunker		
F _m Fijnheidsmodulus	[-]	3.738



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)

Korrelgrootteverdeling (NEN-EN-ISO 17892-4(2016))

GEOLAB WIERTSEMA, TOLBERT

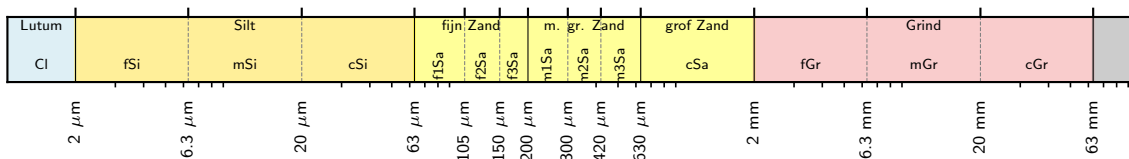
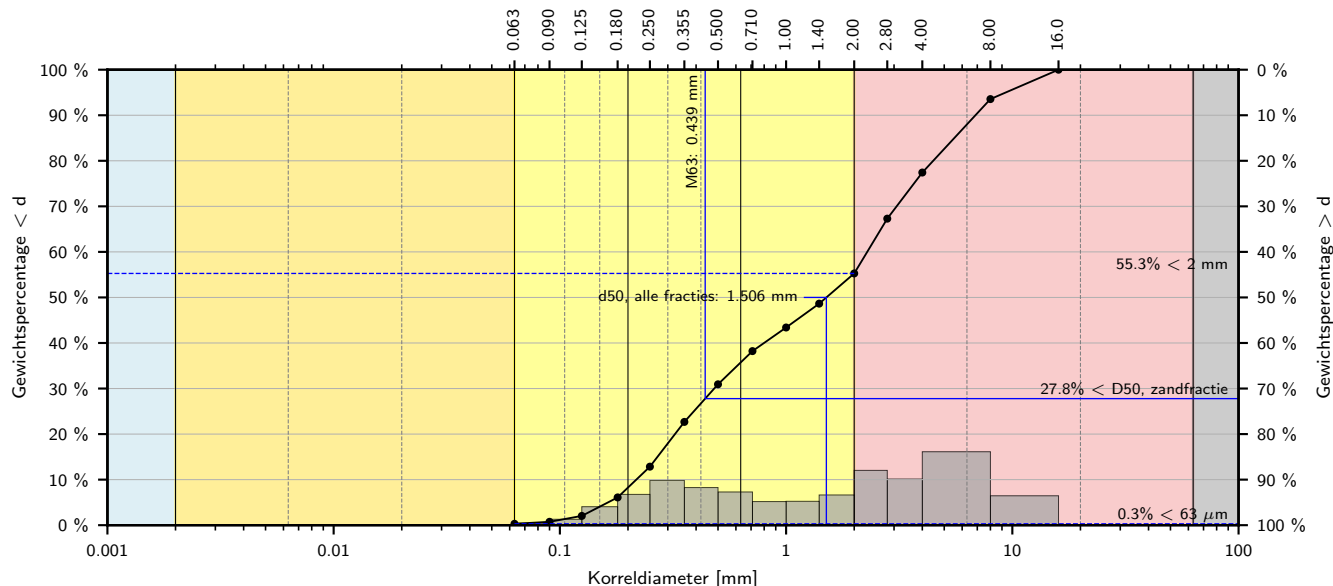


85064-B37_13954568-037_M1A6-x1_KOR

Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B38 (13954568-038)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1A9-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld
 van +0.00 tot -1.00 m. Maaiveld
 Laborant DW
 Beproevingdatum 23-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling		gehele verdeling		zandfractie		Karakteristieken	
d [mm]	% < d	Kental	Waarde	Kental	Waarde		
16.0	100.00	d10	[mm] 0.218	D10	[mm] 0.175	Grind (2 - 63 mm)	[%] 44.7
8.0	93.55	d15	[mm] 0.270	D15	[mm] 0.203	Zand (63 μm - 2 mm)	[%] 55.0
4.0	77.42	d20	[mm] 0.323	D20	[mm] 0.232	Fijne delen (< 63 μm)	[%] 0.3
2.8	67.30	d30	[mm] 0.481	D30	[mm] 0.288	M ₆₃ Zandmediaan (M _z)	[mm] 0.439
2.000	55.27	d40	[mm] 0.799	D40	[mm] 0.350	middelgrof (420 μm - 630 μm)	
1.400	48.64	d50	[mm] 1.506	D50	[mm] 0.439	M ₂₀₀₀ Grindmediaan	[mm] 4.04
1.000	43.40	d60	[mm] 2.283	D60	[mm] 0.560	(M _g)	
0.710	38.22	d70	[mm] 3.080	D70	[mm] 0.737	M ₅₀	[mm] -
0.500	30.93	d80	[mm] 4.468	D80	[mm] 1.058	U ₁₆ (16 μm - 2 mm)	[-] -
0.355	22.67	d85	[mm] 5.540	D85	[mm] 1.262	U _{Zand} (63 μm - 2 mm)	[mm] 28.57
0.250	12.85	d90	[mm] 6.868	D90	[mm] 1.488	U-cijfer volgens formule van Zunker	
0.180	6.09	Cu	[-] 10.488	Cu _{zand}	[-] 3.193	F _m Fijnheidsmodulus	[-] 3.847
0.125	2.03	Cc	[-] 0.466	Cc _{zand}	[-] 0.844		
0.090	0.74	d90/d10	[-] 31.552	D90/D10	[-] 8.486		
Fijne delen 0.063	0.30						



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)

Korrelgrootteverdeling (NEN-EN-ISO 17892-4(2016))

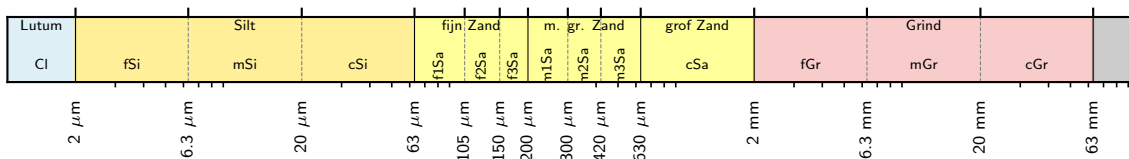
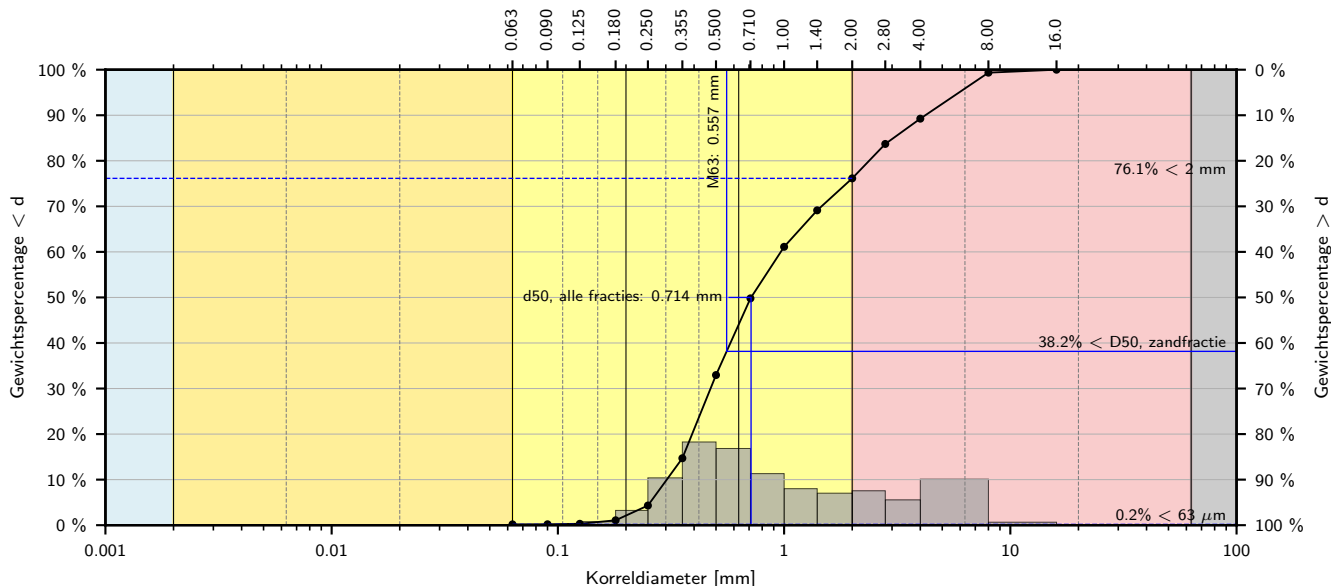
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Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B39 (13954568-039)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1A18-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld
 van +0.00 tot -1.00 m. Maaiveld
 Laborant TR
 Beproeingsdatum 23-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling	
d [mm]	% < d
16.0	100.00
8.0	99.35
4.0	89.25
2.8	83.70
2.000	76.14
1.400	69.12
1.000	61.11
0.710	49.80
0.500	32.96
0.355	14.70
0.250	4.31
0.180	1.07
0.125	0.30
0.090	0.20
Fijne delen 0.063	0.18

gehele verdeling		
Kental		Waarde
d10	[mm]	0.303
d15	[mm]	0.357
d20	[mm]	0.392
d30	[mm]	0.473
d40	[mm]	0.579
d50	[mm]	0.714
d60	[mm]	0.967
d70	[mm]	1.464
d80	[mm]	2.375
d85	[mm]	3.044
d90	[mm]	4.210
Cu	[-]	3.192
Cc	[-]	0.764
d90/d10	[-]	13.898

zandfractie		
Kental		Waarde
D10	[mm]	0.281
D15	[mm]	0.319
D20	[mm]	0.360
D30	[mm]	0.415
D40	[mm]	0.478
D50	[mm]	0.557
D60	[mm]	0.653
D70	[mm]	0.791
D80	[mm]	0.995
D85	[mm]	1.165
D90	[mm]	1.367
Cu _{zand}	[-]	2.323
Cc _{zand}	[-]	0.937
D90/D10	[-]	4.863

Karakteristieken		
Grind (2 - 63 mm)	[%]	23.9
Zand (63 μm - 2 mm)	[%]	76.0
Fijne delen (< 63 μm)	[%]	0.2
M ₆₃ Zandmediaan (M _z)	[mm]	0.557
middelgrof (420 μm - 630 μm)		
M ₂₀₀₀ Grindmediaan (M _g)	[mm]	3.71
M ₅₀	[mm]	-
U ₁₆ (16 μm - 2 mm)	[-]	-
U _{Zand} (63 μm - 2 mm)	[mm]	20.18
U-cijfer volgens formule van Zunker		
F _m Fijnheidsmodulus	[-]	3.365



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)

Korrelgrootteverdeling (NEN-EN-ISO 17892-4(2016))

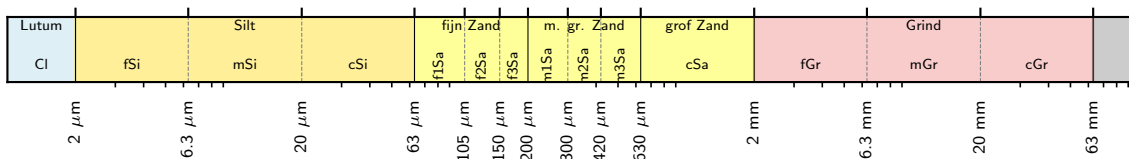
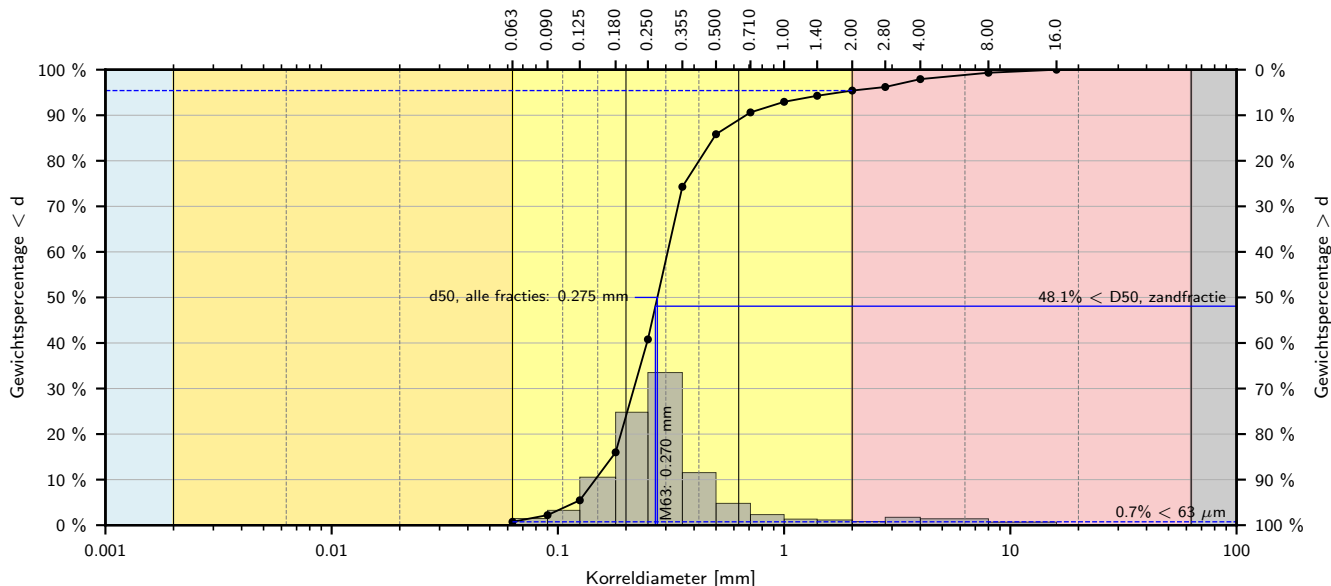
GEOLAB WIERTSEMA, TOLBERT



Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B40 (13954568-040)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1A1-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld
 van +0.00 tot -1.00 m. Maaiveld
 Laborant DW
 Beproeingsdatum 23-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling		gehele verdeling		zandfractie		Karakteristieken	
d [mm]	% < d	Kental	Waarde	Kental	Waarde		
16.0	100.00	d10	[mm] 0.146	D10	[mm] 0.147	Grind (2 - 63 mm)	[%] 4.6
8.0	99.33	d15	[mm] 0.174	D15	[mm] 0.174	Zand (63 μm - 2 mm)	[%] 94.7
4.0	97.93	d20	[mm] 0.190	D20	[mm] 0.189	Fijne delen (< 63 μm)	[%] 0.7
2.8	96.20	d30	[mm] 0.217	D30	[mm] 0.214	M ₆₃ Zandmediaan (M _z)	[mm] 0.270
2.000	95.42	d40	[mm] 0.247	D40	[mm] 0.243	middelgrof (200μm - 300μm)	
1.400	94.28	d50	[mm] 0.275	D50	[mm] 0.270	M ₂₀₀₀ Grindmediaan	[mm] 3.82
1.000	92.95	d60	[mm] 0.306	D60	[mm] 0.298	(M _g)	
0.710	90.62	d70	[mm] 0.339	D70	[mm] 0.329	M ₅₀	[mm] -
0.500	85.84	d80	[mm] 0.420	D80	[mm] 0.379	U ₁₆ (16 μm - 2 mm)	[-] -
0.355	74.29	d85	[mm] 0.488	D85	[mm] 0.436	U _{Zand} (63 μm - 2 mm)	[mm] 41.37
0.250	40.79	d90	[mm] 0.678	D90	[mm] 0.504	U-cijfer volgens formule van Zunker	
0.180	15.99	Cu	[-] 2.090	Cu _{zand}	[-] 2.022	F _m Fijnheidsmodulus	[-] 1.824
0.125	5.46	Cc	[-] 1.050	Cc _{zand}	[-] 1.046		
0.090	2.21	d90/d10	[-] 4.637	D90/D10	[-] 3.422		
Fijne delen 0.063	0.74						



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)

Korrelgrootteverdeling (NEN-EN-ISO 17892-4(2016))

GEOLAB WIERTSEMA, TOLBERT

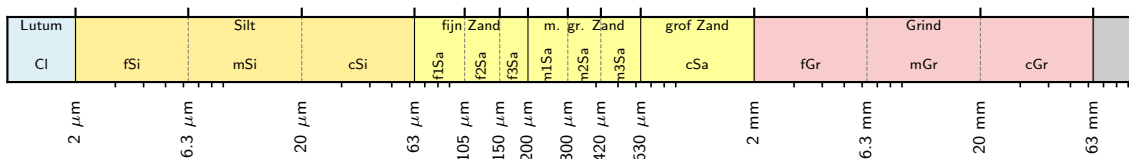
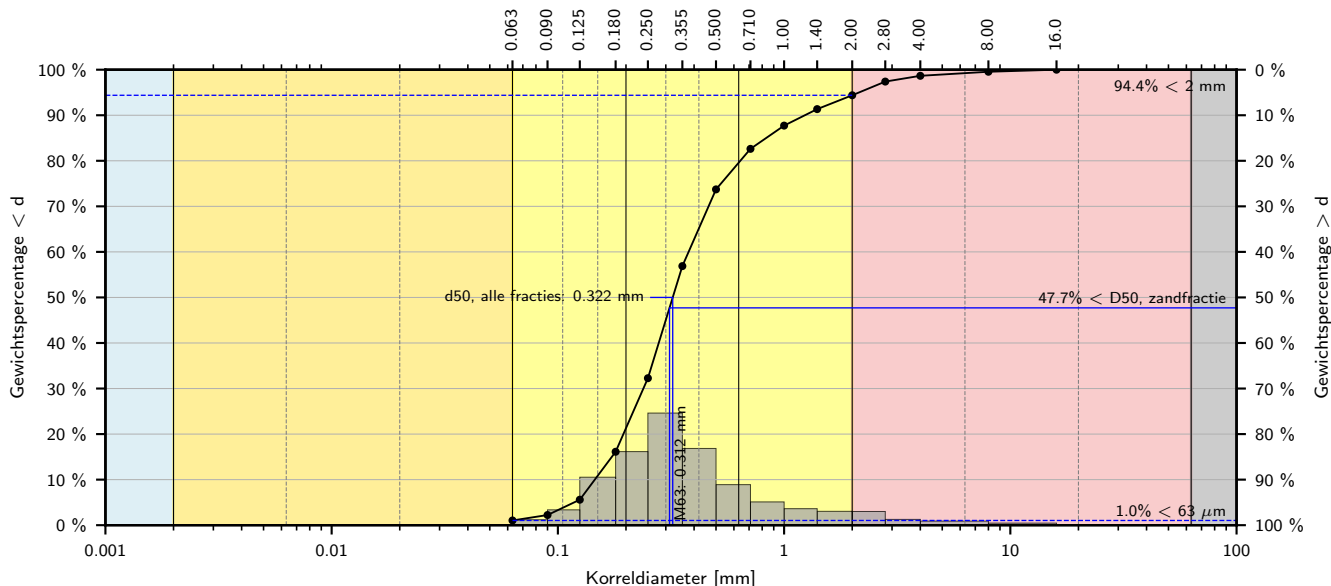


85064-040_13954568-040_M1A1-x1_KOR

Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B41 (13954568-041)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1A8-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld
 van +0.00 tot -1.00 m. Maaiveld
 Laborant TR
 Beproeingsdatum 23-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling	
d [mm]	% < d
16.0	100.00
8.0	99.55
4.0	98.66
2.8	97.39
2.000	94.39
1.400	91.35
1.000	87.73
0.710	82.62
0.500	73.72
0.355	56.88
0.250	32.27
0.180	16.12
0.125	5.59
0.090	2.23
Fijne delen 0.063	1.03

gehele verdeling		
Kental		Waarde
d10	[mm]	0.146
d15	[mm]	0.173
d20	[mm]	0.195
d30	[mm]	0.239
d40	[mm]	0.279
d50	[mm]	0.322
d60	[mm]	0.378
d70	[mm]	0.464
d80	[mm]	0.640
d85	[mm]	0.833
d90	[mm]	1.235
Cu	[-]	2.598
Cc	[-]	1.035
d90/d10	[-]	8.483

zandfractie		
Kental		Waarde
D10	[mm]	0.147
D15	[mm]	0.173
D20	[mm]	0.194
D30	[mm]	0.234
D40	[mm]	0.273
D50	[mm]	0.312
D60	[mm]	0.356
D70	[mm]	0.431
D80	[mm]	0.541
D85	[mm]	0.650
D90	[mm]	0.836
Cu _{zand}	[-]	2.415
Cc _{zand}	[-]	1.043
D90/D10	[-]	5.665

Karakteristieken		
Grind (2 - 63 mm)	[%]	5.6
Zand (63 μm - 2 mm)	[%]	93.3
Fijne delen (< 63 μm)	[%]	1.0
M ₆₃ Zandmediaan (M _z)	[mm]	0.312
middelgrof (300 μm - 420 μm)		
M ₂₀₀₀ Grindmediaan (M _g)	[mm]	2.74
M ₅₀	[mm]	-
U ₁₆ (16 μm - 2 mm)	[-]	-
U _{Zand} (63 μm - 2 mm)	[mm]	36.86
U-cijfer volgens formule van Zunker		
F _m Fijnheidsmodulus	[-]	2.080



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer
31188389 (13954568)

Korrelgrootteverdeling
(NEN-EN-ISO 17892-4(2016))

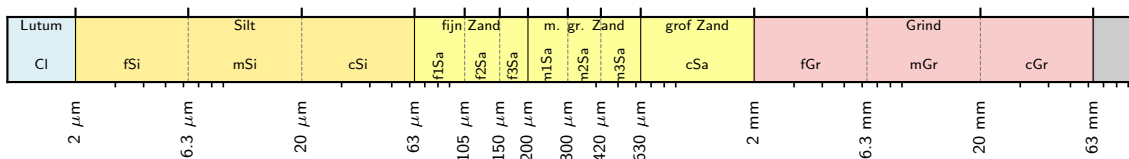
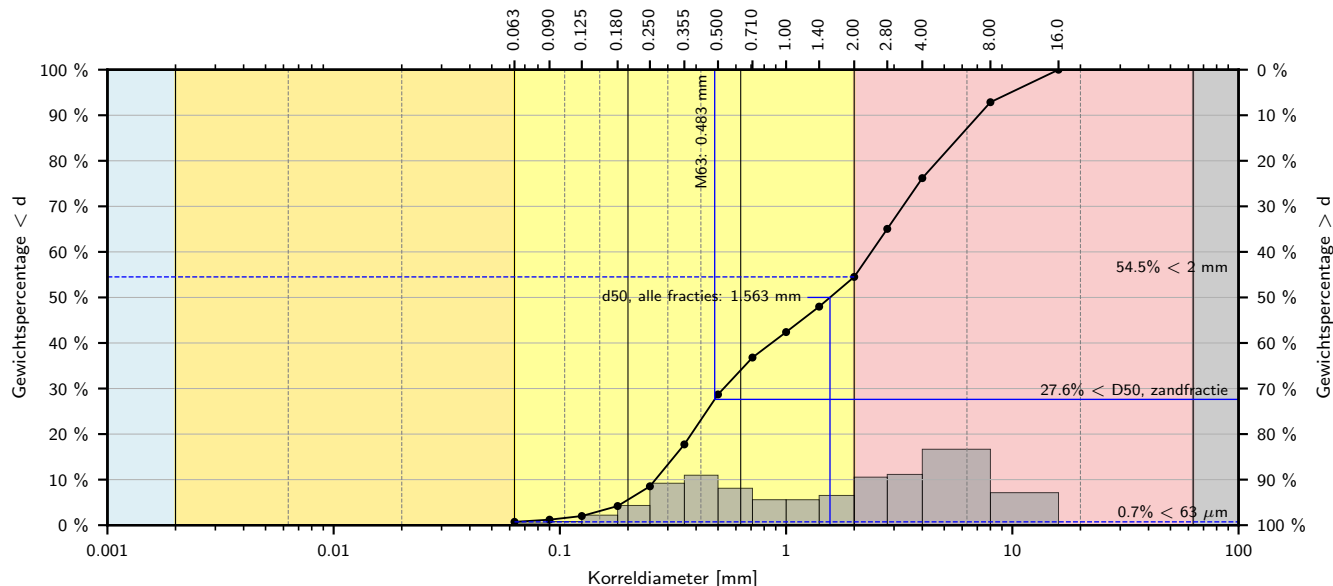
GEOLAB WIERTSEMA, TOLBERT



Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B42 (13954568-042)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1A16-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld
 van +0.00 tot -1.00 m. Maaiveld
 Laborant DW
 Beproeingsdatum 23-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling		gehele verdeling		zandfractie		Karakteristieken	
d [mm]	% < d	Kental	Waarde	Kental	Waarde		
16.0	100.00	d10	[mm] 0.264	D10	[mm] 0.208	Grind (2 - 63 mm)	[%] 45.5
8.0	92.86	d15	[mm] 0.320	D15	[mm] 0.253	Zand (63 μm - 2 mm)	[%] 53.8
4.0	76.19	d20	[mm] 0.381	D20	[mm] 0.280	Fijne delen (< 63 μm)	[%] 0.7
2.8	65.05	d30	[mm] 0.529	D30	[mm] 0.343	M ₆₃ Zandmediaan (M _z)	[mm] 0.483
2.000	54.51	d40	[mm] 0.864	D40	[mm] 0.409	middelgrof (420 μm - 630 μm)	
1.400	47.98	d50	[mm] 1.563	D50	[mm] 0.483	M ₂₀₀₀ Grindmediaan	[mm] 4.18
1.000	42.40	d60	[mm] 2.383	D60	[mm] 0.602	(M _g)	
0.710	36.80	d70	[mm] 3.281	D70	[mm] 0.782	M ₅₀	[mm] -
0.500	28.70	d80	[mm] 4.686	D80	[mm] 1.085	U ₁₆ (16 μm - 2 mm)	[-] -
0.355	17.73	d85	[mm] 5.769	D85	[mm] 1.276	U _{Zand} (63 μm - 2 mm)	[mm] 25.17
0.250	8.53	d90	[mm] 7.102	D90	[mm] 1.491	U-cijfer volgens formule van Zunker	
0.180	4.20	Cu	[-] 9.013	Cu _{zand}	[-] 2.895	F _m Fijnheidsmodulus	[-] 3.948
0.125	2.01	Cc	[-] 0.444	Cc _{zand}	[-] 0.941		
0.090	1.20	d90/d10	[-] 26.860	D90/D10	[-] 7.166		
Fijne delen 0.063	0.73						



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)

Korrelgrootteverdeling (NEN-EN-ISO 17892-4(2016))

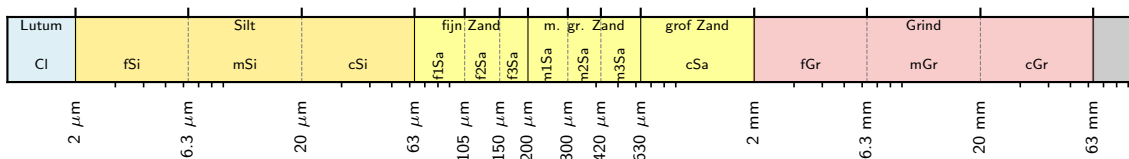
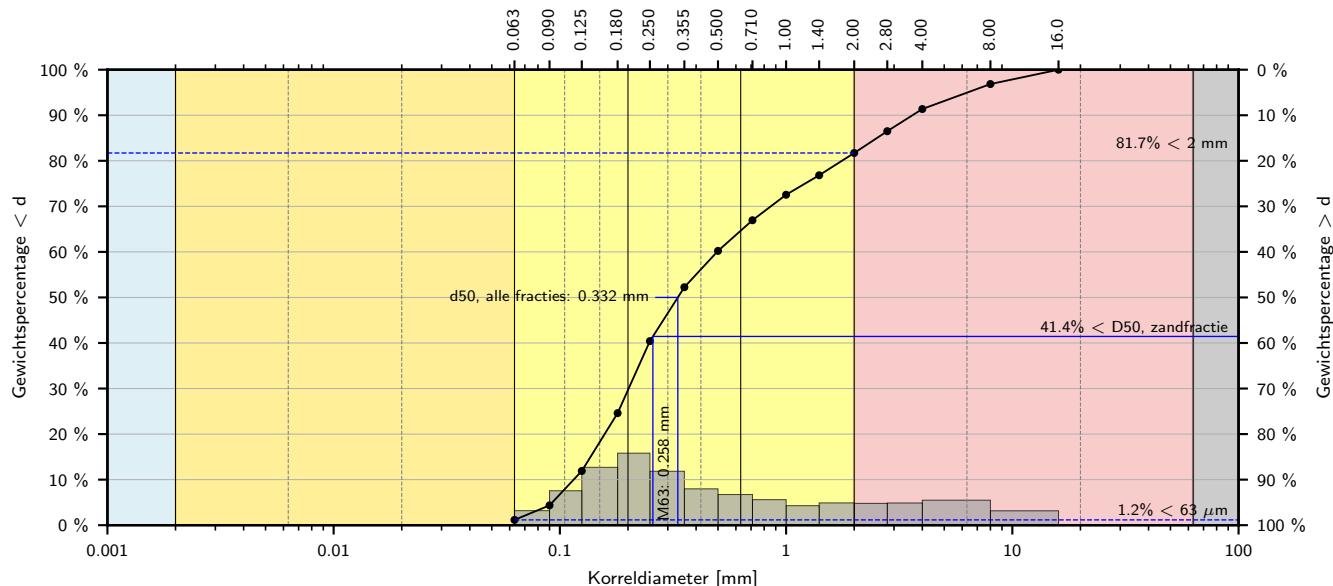
GEOLAB WIERTSEMA, TOLBERT



Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B43 (13954568-043)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1A21-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld
 van +0.00 tot -1.00 m. Maaiveld
 Laborant DW
 Beproeingsdatum 23-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling		gehele verdeling		zandfractie		Karakteristieken	
d [mm]	% < d	Kental	Waarde	Kental	Waarde		
16.0	100.00	d10	[mm] 0.115	D10	[mm] 0.111	Grind (2 - 63 mm)	[%] 18.3
8.0	96.85	d15	[mm] 0.137	D15	[mm] 0.130	Zand (63 μm - 2 mm)	[%] 80.5
4.0	91.37	d20	[mm] 0.158	D20	[mm] 0.146	Fijne delen (< 63 μm)	[%] 1.2
2.8	86.50	d30	[mm] 0.201	D30	[mm] 0.183	M ₆₃ Zandmediaan (M _z)	[mm] 0.258
2.000	81.71	d40	[mm] 0.248	D40	[mm] 0.216	middelgrof (200μm - 300μm)	
1.400	76.83	d50	[mm] 0.332	D50	[mm] 0.258	M ₂₀₀₀ Grindmediaan	[mm] 3.85
1.000	72.55	d60	[mm] 0.495	D60	[mm] 0.327	(M _g)	
0.710	66.95	d70	[mm] 0.856	D70	[mm] 0.446	M ₅₀	[mm] -
0.500	60.22	d80	[mm] 1.765	D80	[mm] 0.662	U ₁₆ (16 μm - 2 mm)	[-] -
0.355	52.25	d85	[mm] 2.520	D85	[mm] 0.837	U _{Zand} (63 μm - 2 mm)	[mm] 44.40
0.250	40.41	d90	[mm] 3.619	D90	[mm] 1.091	U-cijfer volgens formule van Zunker	
0.180	24.60	Cu	[-] 4.304	Cu _{zand}	[-] 2.942	F _m Fijnheidsmodulus	[-] 2.451
0.125	11.90	Cc	[-] 0.711	Cc _{zand}	[-] 0.917		
0.090	4.35	d90/d10	[-] 31.447	D90/D10	[-] 9.811		
Fijne delen 0.063	1.16						



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)

Korrelgrootteverdeling (NEN-EN-ISO 17892-4(2016))

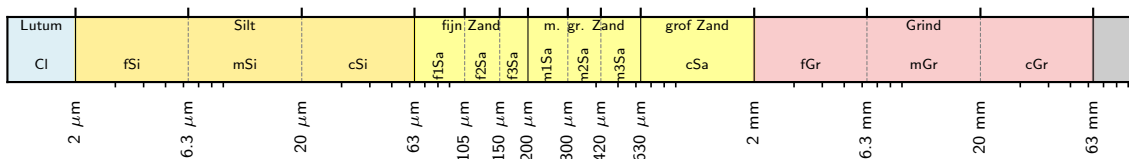
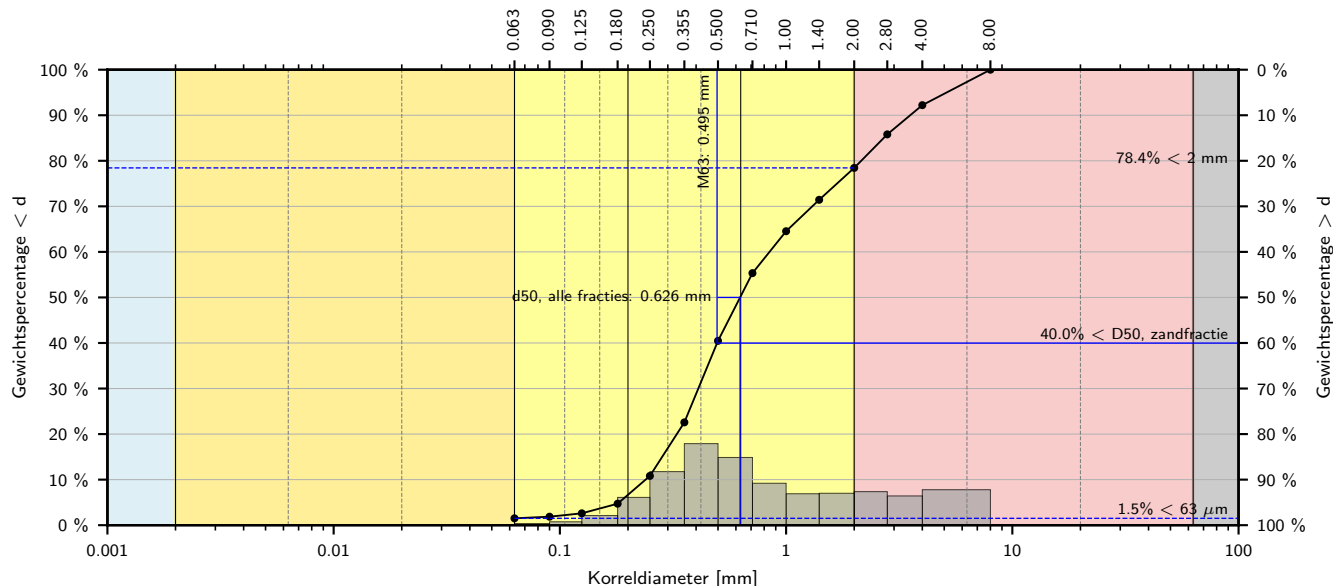
GEOLAB WIERTSEMA, TOLBERT



Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B44 (13954568-044)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1A14-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld
 van +0.00 tot -1.00 m. Maaiveld
 Laborant TR
 Beproevingdatum 23-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling	
d [mm]	% < d
8.0	100.00
4.0	92.22
2.8	85.80
Zand	
2.000	78.44
1.400	71.44
1.000	64.54
0.710	55.34
0.500	40.47
0.355	22.57
0.250	10.81
0.180	4.71
0.125	2.60
0.090	1.86
Fijne delen 0.063	1.51

gehele verdeling		
Kental		Waarde
d10	[mm]	0.239
d15	[mm]	0.283
d20	[mm]	0.329
d30	[mm]	0.409
d40	[mm]	0.496
d50	[mm]	0.626
d60	[mm]	0.845
d70	[mm]	1.305
d80	[mm]	2.148
d85	[mm]	2.699
d90	[mm]	3.536
Cu	[-]	3.530
Cc	[-]	0.829
d90/d10	[-]	14.780

zandfractie		
Kental		Waarde
D10	[mm]	0.229
D15	[mm]	0.267
D20	[mm]	0.300
D30	[mm]	0.369
D40	[mm]	0.427
D50	[mm]	0.495
D60	[mm]	0.593
D70	[mm]	0.711
D80	[mm]	0.946
D85	[mm]	1.122
D90	[mm]	1.354
Cu _{zand}	[-]	2.585
Cc _{zand}	[-]	1.003
D90/D10	[-]	5.907

Karakteristieken		
Grind (2 - 63 mm)	[%]	21.6
Zand (63 μm - 2 mm)	[%]	76.9
Fijne delen (< 63 μm)	[%]	1.5
M ₆₃ Zandmediaan (M _z)	[mm]	0.495
middelgrof (420 μm - 630 μm)		
M ₂₀₀₀ Grindmediaan (M _g)	[mm]	3.39
M ₅₀	[mm]	-
U ₁₆ (16 μm - 2 mm)	[-]	-
U _{Zand} (63 μm - 2 mm)	[mm]	23.82
U-cijfer volgens formule van Zunker		
F _m Fijnheidsmodulus	[-]	3.110



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)

Korrelgrootteverdeling (NEN-EN-ISO 17892-4(2016))

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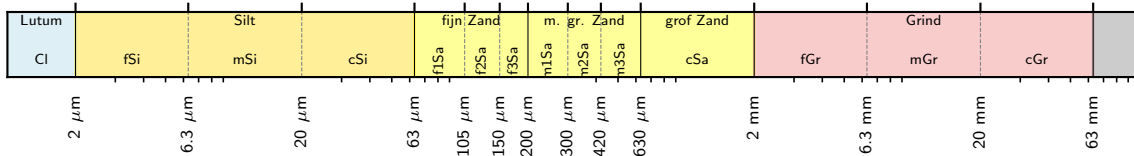
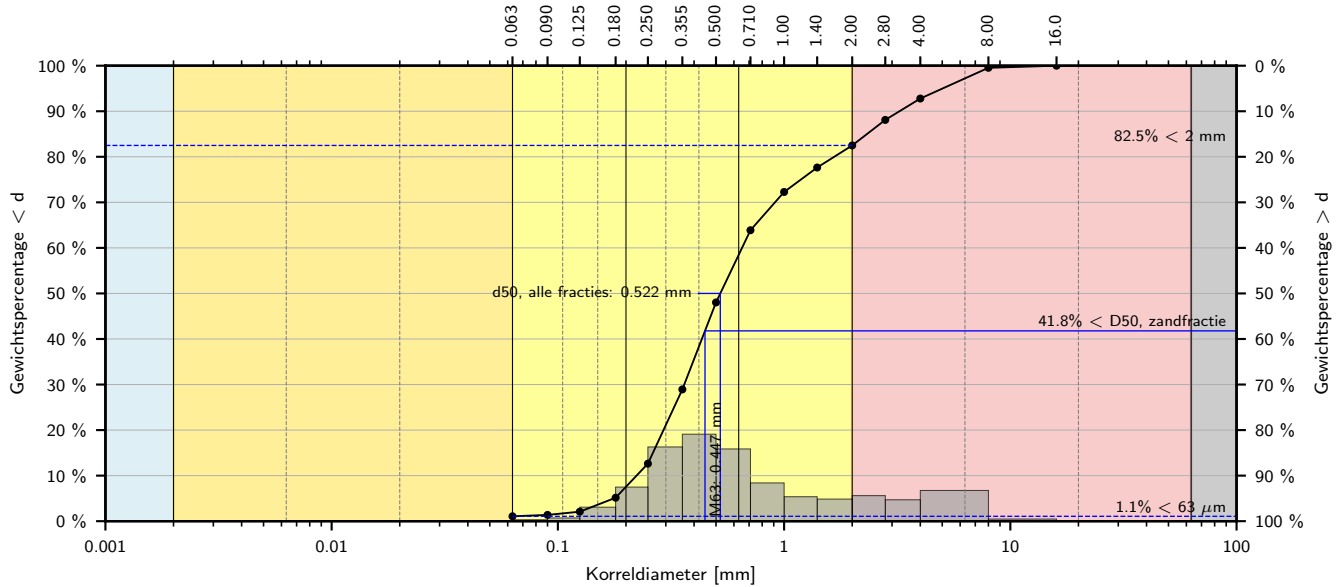


85064-B44_13954568-044_M1A14-x1_KOR

Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B45 (13954568-045)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1A3-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld
 van +0.00 tot -1.00 m. Maaiveld
 Laborant DW
 Beproeingsdatum 23-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling		gehele verdeling		zandfractie		Karakteristieken	
d [mm]	% < d	Kental	Waarde	Kental	Waarde		
16.0	100.00	d10	[mm] 0.223	D10	[mm] 0.215	Grind (2 - 63 mm)	[%] 17.5
8.0	99.54	d15	[mm] 0.263	D15	[mm] 0.254	Zand (63 μm - 2 mm)	[%] 81.4
4.0	92.79	d20	[mm] 0.293	D20	[mm] 0.277	Fijne delen (< 63 μm)	[%] 1.1
2.8	88.10	d30	[mm] 0.362	D30	[mm] 0.330	M ₆₃ Zandmediaan (M _z)	[mm] 0.447
2.000	82.49	d40	[mm] 0.433	D40	[mm] 0.386	middelgrof (420 μm - 630 μm)	
1.400	77.64	d50	[mm] 0.522	D50	[mm] 0.447	M ₂₀₀₀ Grindmediaan	[mm] 3.56
1.000	72.28	d60	[mm] 0.652	D60	[mm] 0.521	(M _g)	
0.710	63.88	d70	[mm] 0.911	D70	[mm] 0.624	M ₅₀	[mm] -
0.500	48.02	d80	[mm] 1.665	D80	[mm] 0.781	U ₁₆ (16 μm - 2 mm)	[-] -
0.355	28.93	d85	[mm] 2.325	D85	[mm] 0.922	U _{Zand} (63 μm - 2 mm)	[mm] 25.98
0.250	12.63	d90	[mm] 3.235	D90	[mm] 1.139	U-cijfer volgens formule van Zunker	
0.180	5.15	Cu	[-] 2.926	Cu _{zand}	[-] 2.424	F _m Fijnheidsmodulus	[-] 2.902
0.125	2.08	Cc	[-] 0.902	Cc _{zand}	[-] 0.969		
0.090	1.38	d90/d10	[-] 14.528	D90/D10	[-] 5.294		
Fijne delen 0.063	1.07						



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)

Korrelgrootteverdeling (NEN-EN-ISO 17892-4(2016))

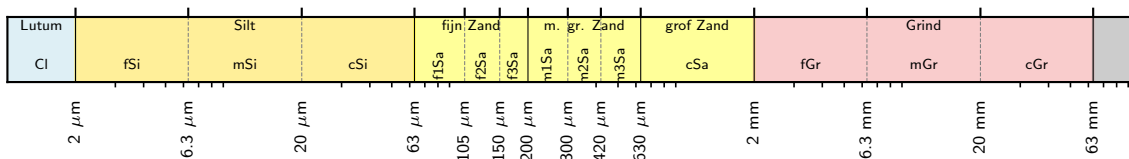
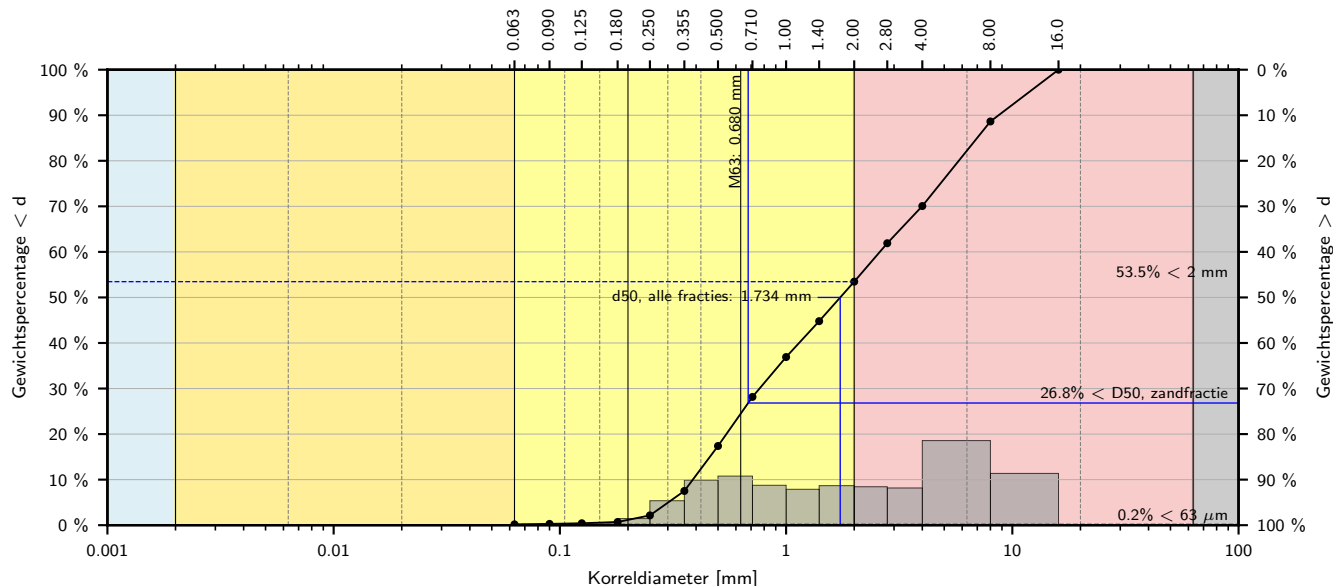
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Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B46 (13954568-046)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1A20-x1
 Diepte van 0.00 tot 1.00 m. -maaveld van +0.00 tot -1.00 m. Maaveld TR
 Laborant TR
 Beproeingsdatum 23-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling		gehele verdeling		zandfractie		Karakteristieken	
d [mm]	% < d	Kental	Waarde	Kental	Waarde		
16.0	100.00	d10	[mm] 0.387	D10	[mm] 0.311	Grind (2 - 63 mm)	[%] 46.5
8.0	88.63	d15	[mm] 0.460	D15	[mm] 0.363	Zand (63 μm - 2 mm)	[%] 53.3
4.0	70.07	d20	[mm] 0.544	D20	[mm] 0.398	Fijne delen (< 63 μm)	[%] 0.2
2.8	61.90	d30	[mm] 0.763	D30	[mm] 0.479	M ₆₃ Zandmediaan (M _z)	[mm] 0.680
2.000	53.47	d40	[mm] 1.141	D40	[mm] 0.572	gr	
1.400	44.79	d50	[mm] 1.734	D50	[mm] 0.680	M ₂₀₀₀ Grindmediaan (M _g)	[mm] 5.13
1.000	36.91	d60	[mm] 2.595	D60	[mm] 0.830	(M _g)	
0.710	28.16	d70	[mm] 3.989	D70	[mm] 1.024	M ₅₀	[mm] -
0.500	17.38	d80	[mm] 5.796	D80	[mm] 1.286	U ₁₆ (16 μm - 2 mm)	[-] -
0.355	7.51	d85	[mm] 6.985	D85	[mm] 1.440	U _{Zand} (63 μm - 2 mm)	[mm] 17.57
0.250	2.15	d90	[mm] 8.695	D90	[mm] 1.606	U-cijfer volgens formule van Zunker	
0.180	0.70	Cu	[-] 6.707	Cu _{zand}	[-] 2.666	F _m Fijnheidsmodulus	[-] 4.310
0.125	0.42	Cc	[-] 0.580	Cc _{zand}	[-] 0.889		
0.090	0.28	d90/d10	[-] 22.468	D90/D10	[-] 5.159		
Fijne delen 0.063	0.18						



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)

Korrelgrootteverdeling (NEN-EN-ISO 17892-4(2016))

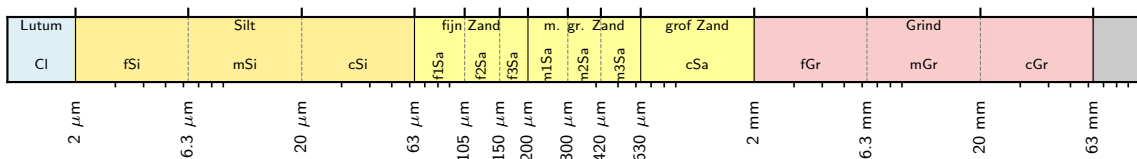
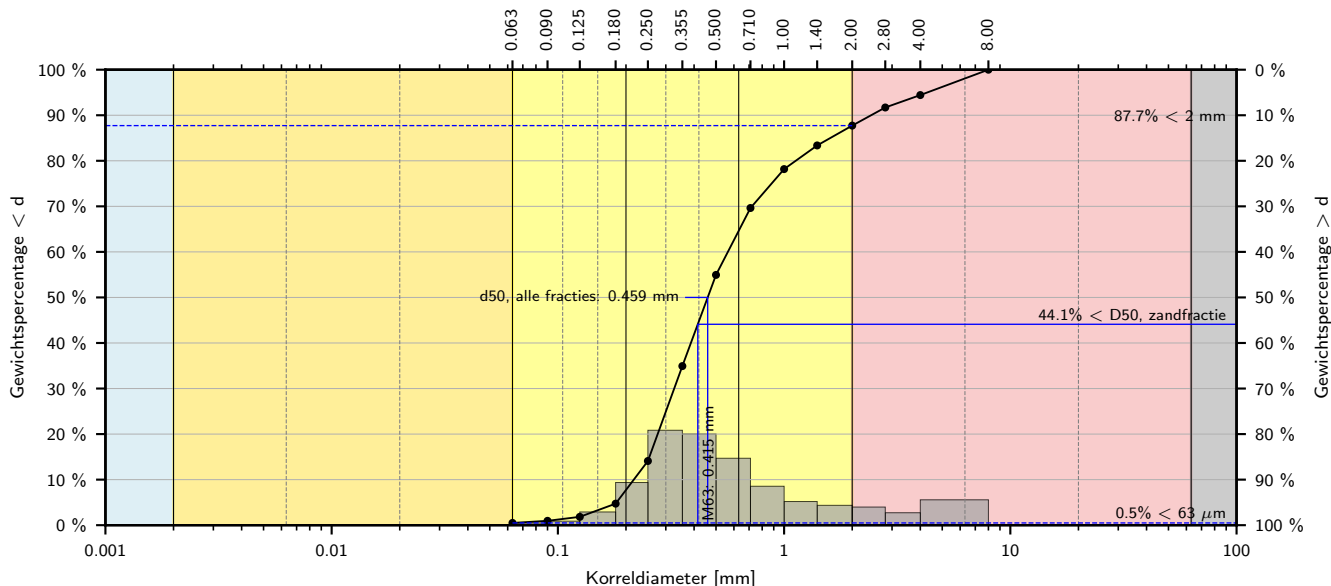
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Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B47 (13954568-047)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1A4-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld
 van +0.00 tot -1.00 m. Maaiveld
 Laborant DW
 Beproeingsdatum 23-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling	
d [mm]	% < d
8.0	100.00
4.0	94.43
2.8	91.70
<hr/>	
2.000	87.73
1.400	83.37
1.000	78.18
0.710	69.63
0.500	54.95
0.355	34.93
0.250	14.09
0.180	4.73
0.125	1.83
0.090	0.95
<hr/>	
Fijne delen 0.063	0.49

gehele verdeling		
Kental		Waarde
d10	[mm]	0.217
d15	[mm]	0.254
d20	[mm]	0.276
d30	[mm]	0.327
d40	[mm]	0.387
d50	[mm]	0.459
d60	[mm]	0.564
d70	[mm]	0.720
d80	[mm]	1.125
d85	[mm]	1.600
d90	[mm]	2.424
Cu	[-]	2.605
Cc	[-]	0.874
d90/d10	[-]	11.194

zandfractie		
Kental		Waarde
D10	[mm]	0.211
D15	[mm]	0.246
D20	[mm]	0.267
D30	[mm]	0.309
D40	[mm]	0.358
D50	[mm]	0.415
D60	[mm]	0.482
D70	[mm]	0.585
D80	[mm]	0.729
D85	[mm]	0.868
D90	[mm]	1.055
Cu _{zand}	[-]	2.289
Cc _{zand}	[-]	0.939
D90/D10	[-]	5.007

Karakteristieken		
Grind (2 - 63 mm)	[%]	12.3
Zand (63 μm - 2 mm)	[%]	87.2
Fijne delen (< 63 μm)	[%]	0.5
M ₆₃ Zandmediaan (M _z)	[mm]	0.415
middelgrof (300 μm - 420 μm)		
M ₂₀₀₀ Grindmediaan (M _g)	[mm]	3.71
M ₅₀	[mm]	-
U ₁₆ (16 μm - 2 mm)	[-]	-
U _{Zand} (63 μm - 2 mm)	[mm]	27.31
U-cijfer volgens formule van Zunker		
F _m Fijnheidsmodulus	[-]	2.689



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)

Korrelgrootteverdeling (NEN-EN-ISO 17892-4(2016))

GEOLAB WIERTSEMA, TOLBERT

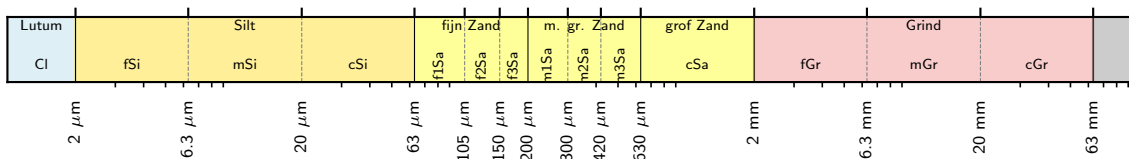
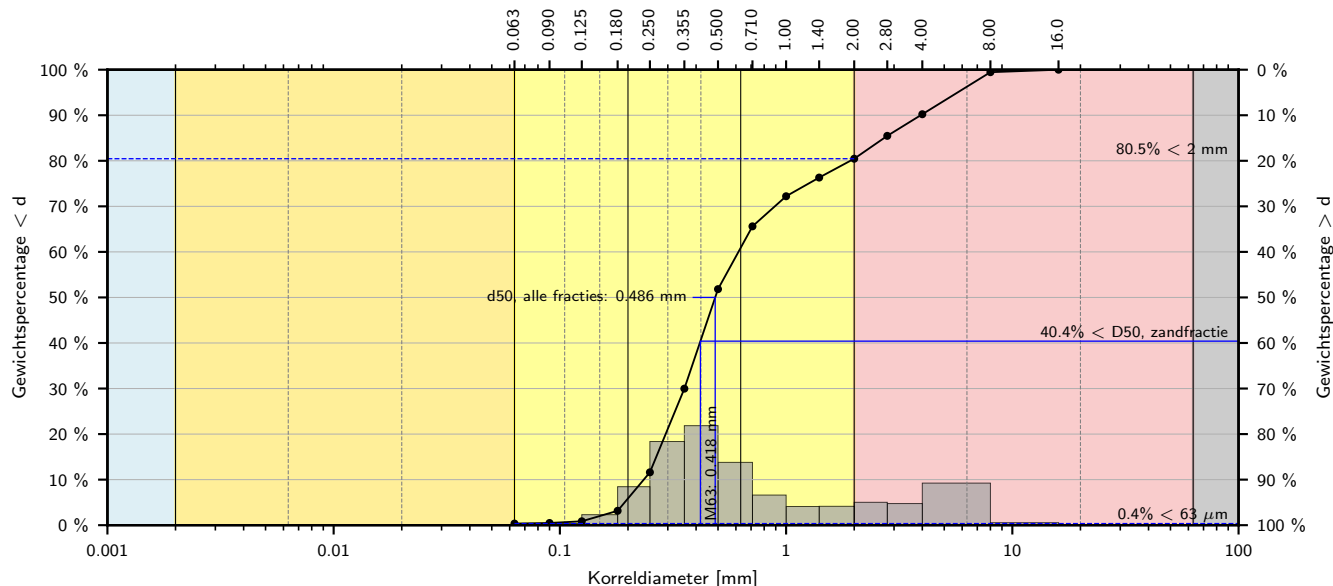


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Korrelgrootteverdeling

Project nr. 85064
 Projectomschrijving Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)
 Locatie Rotterdam
 Boring B48 (13954568-048)
 Coördinaten (RD) -
 Opdrachtgever SGS Environmental Analytics B.V., Rotterdam

Monsternr M1A10-x1
 Diepte van 0.00 tot 1.00 m. -maaiveld
 van +0.00 tot -1.00 m. Maaiveld
 Laborant TR
 Beproeingsdatum 23-10-2023
 Grondsoort ZAND



Korrelgrootteverdeling		gehele verdeling		zandfractie		Karakteristieken	
d [mm]	% < d	Kental	Waarde	Kental	Waarde		
16.0	100.00	d10	[mm] 0.235	D10	[mm] 0.220	Grind (2 - 63 mm)	[%] 19.5
8.0	99.45	d15	[mm] 0.267	D15	[mm] 0.254	Zand (63 μm - 2 mm)	[%] 80.1
4.0	90.22	d20	[mm] 0.293	D20	[mm] 0.274	Fijne delen (< 63 μm)	[%] 0.3
2.8	85.48	d30	[mm] 0.355	D30	[mm] 0.319	M ₆₃ Zandmediaan (M _z)	[mm] 0.418
2.000	80.46	d40	[mm] 0.415	D40	[mm] 0.369	middelgrof (300μm - 420μm)	
1.400	76.32	d50	[mm] 0.486	D50	[mm] 0.418	M ₂₀₀₀ Grindmediaan	[mm] 4.00
1.000	72.21	d60	[mm] 0.616	D60	[mm] 0.474	(M _g)	
0.710	65.61	d70	[mm] 0.892	D70	[mm] 0.562	M ₅₀	[mm] -
0.500	51.82	d80	[mm] 1.923	D80	[mm] 0.689	U ₁₆ (16 μm - 2 mm)	[-] -
0.355	29.98	d85	[mm] 2.712	D85	[mm] 0.822	U _{Zand} (63 μm - 2 mm)	[mm] 26.45
0.250	11.61	d90	[mm] 3.934	D90	[mm] 1.019	U-cijfer volgens formule van Zunker	
0.180	3.16	Cu	[-] 2.621	Cu _{zand}	[-] 2.151	F _m Fijnheidsmodulus	[-] 2.933
0.125	0.86	Cc	[-] 0.872	Cc _{zand}	[-] 0.975		
0.090	0.48	d90/d10	[-] 16.750	D90/D10	[-] 4.625		
Fijne delen 0.063	0.35						



Geolab Wiertsema

Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)

Korrelgrootteverdeling (NEN-EN-ISO 17892-4(2016))

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Bijlage L2

Project: VN-85064
 Projectomschrijving: Kribvaksuppletie Waal 2023-2026 zaaknummer 31188389 (13954568)

Nummer	Monsteromschrijving	d16	d84
B01	M1C14	0,2949	2,3898
B02	M1C17	-	-
B03	M1C21	-	0,1487
B04	M1C3	0,2946	2,5227
B05	M1C19	0,2983	2,3227
B06	M1C4	0,288	3,1155
B07	M1C7	0,2752	1,7073
B08	M1C18	0,3347	2,9231
B09	M1C2	0,2918	2,7214
B10	M1C10	0,3087	6,9422
B11	M1C1	0,3106	1,3459
B12	M1C22	0,2847	2,743
B13	M1C12	0,3423	2,6645
B14	M1C8	0,303	5,5386
B15	M1C20	0,283	3,2521
B16	M1C6	0,3536	2,8279
B17	M1C23	0,3543	3,0608
B18	M1C15	0,3652	2,8835
B19	M1C13	-	0,1339
B20	M1C5	0,3007	1,9339
B21	M1C9	0,3597	5,8945
B22	M1C11	0,3158	2,7645
B23	M1C16	0,2519	1,4614
B24	M1C24	0,2638	0,7118
B25	M1A24	0,4514	9,0908
B26	M1A15	0,2584	2,6444
B27	M1A7	0,3097	3,0087
B28	M1A2	0,257	3,2554
B29	M1A22	0,1379	0,4316
B30	M1A13	0,3991	10,4082
B31	M1A19	0,2553	2,6302
B32	M1A11	0,3035	1,2278
B33	M1A17	0,1943	5,6227
B34	M1A23	0,3019	2,3706
B35	M1A12	0,216	1,012
B36	M1A5	0,2112	5,073
B37	M1A6	0,3853	4,2942
B38	M1A9	0,2798	5,3068
B39	M1A18	0,3638	2,8548
B40	M1A1	0,18	0,4735
B41	M1A8	0,1793	0,7788
B42	M1A16	0,3323	5,5338
B43	M1A21	0,1406	2,3489
B44	M1A14	0,2918	2,5788
B45	M1A3	0,2688	2,1893
B46	M1A20	0,4766	6,7292
B47	M1A4	0,2582	1,474
B48	M1A10	0,2719	2,5363

