

NorGeoSpec 2012 Product Certificate



Certificate no.: No 0907-QC-1480

Manufacturer : TenCate Geosynthetics

Raw material: PET

Date: 01.08.2015

Product: MIRAGRID GX 35/35

Function: Reinforcement

Valid until: 31.07.2017

Product Type: GGR

Quality Product Certification Reinforcement

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Characteristic	Standard	Unit	Declared value	Max. tolerance	Certification value	
Mass per unit area	EN ISO 9864	g/m ²	245	± 25	220 - 270	
Dimension	NorGeoSpec 2012					
Grid openings production width			209	± 0	209	
Grid apertures	MD	mm	22*	± 3.3	18.7 - 25.3	
	CMD	mm	25*	± 3.8	21.2 - 28.8	
Mechanical tests						
Tensile strength	MD	EN ISO 10319	kN/m	35.00	- 0.00	35.00
	CMD	EN ISO 10319	KN/m	35.00	- 0.00	35.00
Strain at nominal strength	MD	EN ISO 10319	%	9.9	± 2.0	7.9 - 11.9
	CMD	EN ISO 10319	%	9.4	± 1.9	7.5 - 11.3
Strength at 2% extension	MD	EN ISO 10319	kN/m	7.50	- 1.50	6.00
	CMD	EN ISO 10319	kN/m	7.50	- 1.50	6.00
Strength at 5% extension	MD	EN ISO 10319	kN/m	13.00	- 2.60	10.40
	CMD	EN ISO 10319	kN/m	13.00	- 2.60	10.40
Strength at 10% extension	MD	EN ISO 10319	kN/m	-	-	-
	CMD	EN ISO 10319	kN/m	-	-	-
Durability (Declared value)						
Service life		years	<input type="checkbox"/> 25	<input type="checkbox"/> 50	<input type="checkbox"/> 100	

Information about reduction factors are given on page 2 of this certificate.

* Larger mesh sizes at each side of the roll

Issued by

Christian Recker, NorGeoSpec project manager

Approved by

Arnstein Watn, Head of the Technical committee



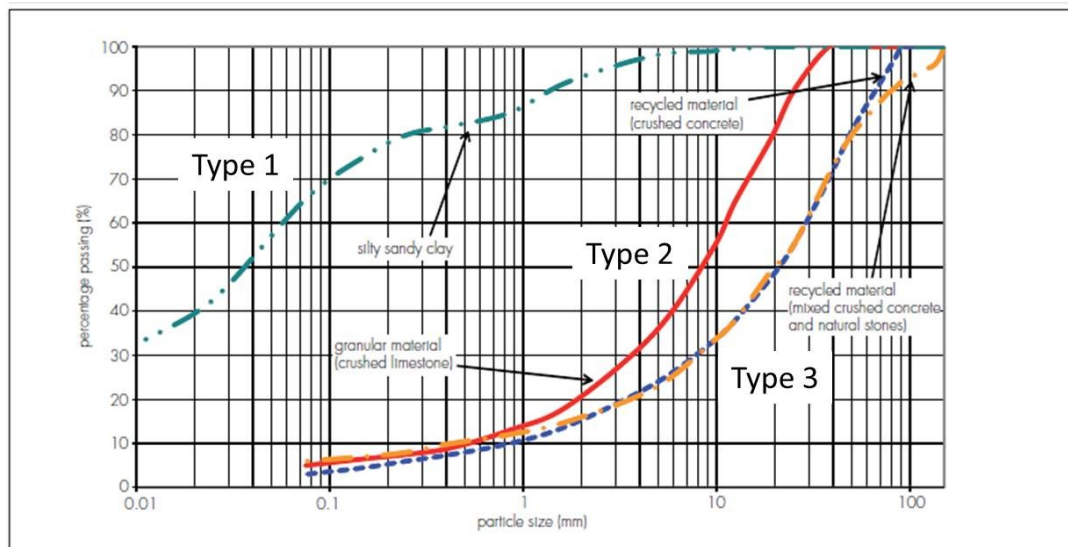
The products are regularly audited and tested to verify that the characteristics fulfil the NorGeoSpec requirements.
Approved by the NorGeoSpec Technical committee: 01.08.2015

Quality Product Certification Reinforcement

Declared values						
Reduction factor for creep rupture ¹⁾²⁾	RF _{CR}	1.56	Remarks: 114 years, tBU No. 1.6/22320/0910.0.1-2011e			
Reduction factor for enviromental effects	RF _{CH}					
Chemical		-	Remarks: Application in natural soils at a pH-value between 4 and 9 and a soil temperature of <25°C			
Oxidation		n.r.	Remarks: -			
Hydrolysis		1.05	Remarks: pH 4.0 to 9.0; 120 years, SKZ 89363/09-08.12.2010			
Reduction factor for weathering	RF _W		Remarks:			
Or max. exposure time						
1 month						
2 weeks		x				
1 day						
Reduction factor for installation damage	RF _{ID, fine}	1.09 (Type 1)	RF _{ID, medium}	1.14 (Type 2)	RF _{ID, coarse}	1.31 (Type 3)
Used test method	Baugrund Wien 10-2022-01					

Compaction:
 Min. compaction depth above geogrid 320mm
 Ride-on steel-wheeled roller (12400 kg)
 Relative density >95%

Particle size distribution of fills used in installation damage testing



¹⁾ producte range,
²⁾ not required if used as base course layers
 n.r. = not required
 n/a = not applicable