

G-Gird[®] FGCM Series Glass Fibre Uniaxial composites Geogrid

G-Gird® FGCM series are geocomposites manufactured by Glass Fibre Uniaxial Geogrid heat bonded with needle punched nonwoven geotextile. Geogrid provides soil reinforcement and the nonwoven geotextile provides separation and filtration. The high elongation capacity of nonwoven geotextile ensures that the inter-locking ability between the composite geogrid and the filling material is not reduced and stress is transferred to the geogrid. Features: Versatile, High tensile strength;

Applications: Retaining structures, basal reinforcement ,piling platforms, subgrade improvement.

Geogrid Properties	Value Type	Unit	FGUC 25/25	FGUC 30/30	FGUC 40/30	FGUC 50/30	FGUC 80/30	FGUC 100/30	FGUC 125/30	FGUC 150/30	FGUC 200/30	FGUC 300/30
Polymer			Glass Fibre / black									
Coating	SBR / PVC											
Mechanical Properties												
Tensile strength,MD [ASTM D4595 or EN ISO 10319 / ASTM D6637]	Typical	kN/m	25	30	40	50	80	100	125	150	200	300
Tensile strength,CD [ASTM D4595 or EN ISO 10319 / ASTM D6637]	Typical	kN/m	25	30	30	30	30	30	30	30	30	30
Elongation, MD / CD [ASTM D4595 or EN ISO 10319 / ASTM D6637]	Typical	%	≤4	≤4	≤4	≤4	≤4	≤4	≤4	≤4	≤4	≤4
Tensile strength at 2% elongation, MD [ASTM D4595 or EN ISO 10319 / ASTM D6637]	Typical	kN/m	20	24	32	40	60	75	94	113	150	225
LTDS Tensile strength @ 120 years design life [ASTM D 4595]	Typical	kN/m	16	20	26	33	52	65	81	98	130	195
Reduction factor - creep 120 years [ASTM D 4595]	Typical	-	≤1.43	≤1.43	≤1.43	≤1.43	≤1.43	≤1.43	≤1.43	≤1.43	≤1.43	≤1.43
Installation damage resistance [ASTM D5818 or ISO 10722]	Typical	%	≥ 98	≥ 98	≥ 98	≥ 98	≥ 98	≥ 98	≥ 98	≥ 98	≥ 98	≥ 98
Width Deviation	Typical	%	+1.0	+1.0	+1.0	+1.0	+1.0	+1.0	+1.0	+1.0	+1.0	+1.0
Aperture Dimensions. MD x CD	Typical	mm	12 ≤MD ≤ 450 , 12 ≤ CD ≤ 450									
Melting Point [ASTM D276-00a]	Typical	°C	800	800	800	800	800	800	800	800	800	800
UV-resistance [ASTM D 4355(500 hrs)]	Typical	%	≥95	≥95	≥95	≥95	≥95	≥95	≥95	≥95	≥95	≥95
Geotextile Properties	Value Type	Unit	EV-0-9(According to customization)									
Grab Strength [ASTM D 4632/AS3706.2]	Typical	N	≥500(According to customization)									
G Rating [Austroads]	Typical	-	≥890(According to customization)									
Permittivity [ASTM D 4491/AS3706.9]	Typical	Sec ⁻¹	≥2.7(According to customization)									
Composites Properties	Value Type	Unit	FGUC 25/25	FGUC 30/30	FGUC 40/30	FGUC 50/30		FGUC 100/30			FGUC 200/30	
Geotextile Bitumen Retention [ASTM D 6140]	Typical	L/m ²	0.5~0.7									
Peel Strength [ASTM D 6496]	Typical	N/m	According to customization									
Physical Identification Properties												
Grade	Typical	g/m²	FGUC 25/25	FGUC 30/30	FGUC 40/30	FGUC 50/30	FGUC 80/30	FGUC 100/30	FGUC 125/30	FGUC 150/30	FGUC 200/30	FGUC 300/30
Roll Width	Typical	m(<=)	According to customization									
Roll Length	Typical	m	According to customization									
Approx Load Q'ty / 40' HQ		Rolls(> =)	-	-	-	-	-	-	-	-	-	-
		Sq. m	-	-	-	-	-	-	-	-	-	-

Above the values listed are the average values, the data was obtained from in-house test laboratory, National test institutes and international test institutes. GeoTrans keeps the right of data changes and the final explanation right. Liability Exclusion: This publication should not be construed as engineering advice. While information contained here is accurate to the best of our knowledge, GeoTrans does not warrant its accuracy or completeness. The only warranty made by GeoTrans for its products is set forth in our Product Test Report accompanies our shipment of the products, or such other written warranty as may be agreed by GeoTrans and customer.GeoTrans specifically disclaims all other warranties express or implied, including without agreed by GeoTrans and customer. GeoTrans all other warranties, express or implied, including without limitation, warranties of merchantability or fitness for a particular purpose, or rising from provision of samples, a course of dealing or usage of trade.



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