

## G-Gird® PET Series PET Biaxial Geogrid

G-Grid® PET series are knitted by high tenacity polyester yarns as per desired mesh sizes and strength, coated with a PVC or SBR coating to provide dimensional stability. G-Grid® PET geogrids are high strength, high tenacity in a full range of tensile strengths from 20kN/m to 1000kN/m at CD and MD directions.

Features: High tensile strength, convenient to construct;

Applications: Reinforcement of granular soils, embankment reinforcement, retaining structures, slope reinforcement, Suitable for use in construction projects for further strengthening and soil stabilization.

Typical Properties	Value Type	Unit	PETB 40/40	PETB 60/60	PETB 80/80	PETB 100/100	PETB 130/130	PETB 160/160	PETB 200/200	PETB 400/400	PETB 600/600	PETB 800/800	PETB 1000/1000
Polymer	PET, white/black												
Coating	SBR / PVC												
Tensile strength, MD/CD [ISO 10319 / ASTM D6637]	Typical	kN/m	40	60	80	100	130	160	200	400	600	800	1000
Elongation, MD / CD [ISO 10319 / ASTM D6637]	Typical	%	≤10	≤10	≤10	≤10	≤10	≤10	≤10	≤10	≤10	≤10	≤10
Tensile strength at 5% elongation, MD/CD [ISO 10319 / ASTM D6637]	Typical	kN/m	≥25	≥39	≥52	≥65	≥83	≥107	≥128	≥260	≥395	≥525	≥680
<b>Material reduction factor creep-rupture, <math>f_{cr}</math></b>													
Reduction factor - creep 50 years, MD/CD [ASTM D 45]	-	-	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Reduction factor - creep 100 years, MD/CD [ASTM D 4595]	-	-	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43
<b>Creep limited strength based on creep-rupture, <math>T_{cr}</math></b>													
at 50 years design life, MD/CD	Typical	kN/m	29	43	57	71	93	114	143	286	429	571	714
at 100 years design life, MD/CD	Typical	kN/m	28	42	56	70	91	112	140	280	420	560	700
<b>Material reduction factor - installation damage, <math>f_{id}</math></b>													
in clay, silt or sand [ASTM D5818 or ISO 10722]	-	-	1.10	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
in gravel (125mm max size)	-	-	1.15	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
<b>Material reduction factor - environmental effects (<math>4 &lt; \text{pH} &lt; 9</math>), <math>f_{en}</math></b>													
at 50 years design life	-	-	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03	1.03
at 100 years design life	-	-	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Width Deviation	Typical	%	+1.0	+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	15 ≤ MD ≤ 60, 15 ≤ CD ≤ 60										
UV-resistance [ASTM D 4355(500 hrs)]	Typical	%	>90	>90	>90	>90	>90	>90	>90	>90	>90	>90	>90
<b>Physical Identification Properties</b>													
Grade	T	g/m <sup>2</sup>	PETB 40/40	PETB 60/60	PETB 80/80	PETB 100/100	PETB 130/130	PETB 160/160	PETB 200/200	PETB 400/400	PETB 600/600	PETB 800/800	PETB 1000/1000
Roll Width	T	m(≤)	According to customization										
Roll Length	T	m	According to customization										
Approx Load Q'ty / 40' HQ		Rolls(≥)	-	-	-	-	-	-	-	-	-	-	-
		Sq. m	-	-	-	-	-	-	-	-	-	-	-

(1) Tensile strength in terms of characteristics (95th percentile) values, which are statistically safe values

(2) 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 specifically disclaims 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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