

G-Grid® HDU series full name is High-density polyethylene Uniaxial geogrid, is a kind of plastic sheet with a grid-like structure made of high-density polyethylene through extrusion molding process.

Its advantages include excellent tensile strength, compressive strength, good weather resistance, resistance to aging and damage, simple construction method, and non-toxic and harmless.

It is widely used in landfill sites, tunnels, subways, highways, railways and other projects, playing a role in anti-seepage, reinforcement and enhancing the stability of geological structures.

Typical Properties	Value Type	Unit	HDU50/30	HDU80/30	HDU120/50	HDU160/50	HDU180/50	HDU200/50
Polymer			High-density polyethylene (HDPE), white/black					
Mechanical Properties								
Mass per Unit [ASTM D5261]	Typical	g/m ²	≥250	≥350	≥500	≥650	≥750	≥850
Tensile strength,MD [ASTM D4595 or EN ISO 10319 / ASTM D6637]	Typical	kN/m	50	80	120	160	180	200
Elongation, MD [ASTM D4595 or EN ISO 10319 / ASTM D6637]	Typical	%	≤11.5	≤11.5	≤11.5	≤11.5	≤11.5	≤11.5
Tensile strength at 2% elongation, MD [ASTM D4595 or EN ISO 10319 / ASTM D6637]	Typical	kN/m	20	32	48	64	72	80
Tensile strength at 5% elongation, MD [ASTM D4595 or EN ISO 10319 / ASTM D6637]	Typical	kN/m	40	64	96	128	144	160
LTDS Tensile strength @ 120 years design life [ASTM D 4595]	Typical	kN/m	33	52	78	104	117	130
Reduction factor - creep 120 years [ASTM D 4595]	Typical	-	≤1.43	≤1.43	≤1.43	≤1.43	≤1.43	≤1.43
Carbon black [ASTM D 4218]	Typical	%	≥2	≥2	≥2	≥2	≥2	≥2
Installation damage resistance [ASTM D5818 or ISO 10722]	Typical	%	≥ 98	≥ 98	≥ 98	≥ 98	≥ 98	≥ 98
Width Deviation	Typical	%	+1.0	+1.0	+1.0	+1.0	+1.0	+1.0
Aperture Dimensions. MD x CD	Typical	mm	MD ≤ 450 , 12 ≤ CD ≤ 30					
UV-resistance [ASTM D 4355(500 hrs)]	Typical	%	≥95	≥95	≥95	≥95	≥95	≥95
Physical Identification Properties								
Grade	Typical	g/m ²	HDU50/30	HDU80/30	HDU120/50	HDU160/50	HDU180/50	HDU200/50
Roll Width	Typical	m(<=)	5.9	5.9	5.9	5.9	5.9	5.9
Roll Length	Typical	m	100	100	100	100	100	100
Approx Load Q'ty / 40' HQ	-	Rolls(>=)	102	73	52	40	34	30
	-	Sq. m	60,180	43,070	30,680	23,600	20,060	17,700

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 specifically disclaims all other warranties, express or implied, including without limitation, warranties of merchantability or fitness for a particular purpose, or arising from provision of samples, a course of dealing or usage of trade.



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