

MACGRID® EG12 BIAXIAL GEOGRID

Product Description

MacGrid® EG12 geogrid is composed of one layer of high strength extruded biaxial oriented polypropylene. MacGrid® EG12 distributes applied loads and prevents localized shear failure. **Typical applications:** soft soil stabilization; base reinforcement; embankments over weak soils; working platforms; haul roads.

MATERIALS CHARACTERISTICS	UNITS	DATA		
Polymer Type		Polypropylene		
TECHNICAL CHARACTERISTICS		MACGRID® EG12		NOTES
Index Properties:		MD	XMD	1
Aperture Size	mm (in)	25 (1.0)	33 (1.3)	2
Percent of Open Area	%	70		3
Minimum Rib Thickness	mm (in)	1.27 (0.05)	1.27 (0.05)	2
Ultimate Tensile Strength	lb/ft (kN/m)	1,310 (19.2)	1,970 (28.8)	4
Tensile Strength @ 2% Strain	lb/ft (kN/m)	410 (6.0)	620 (9.0)	4
Tensile Strength @ 5% Strain	lb/ft (kN/m)	810 (11.8)	1,340 (19.6)	4
Structural Integrity:				
Junction Efficiency	%	93		5
Aperture Stability	m-N/de	0.65		7
Flexural Stiffness	mg-cm	750,000		6
Durability:				
Resistance to Installation Damage	%SC/%SW/%GP	95 / 93 / 90		8
Resistance to Long Term Degradation	%	100		9
Resistance to UV Degradation	%	100		10
DIMENSIONAL CHARACTERISTICS	UNIT	MACGRID® EG12		NOTES
Roll Dimensions (Width x Length)	ft x ft (m x m)	8 x164 (3.0x50) or 13.1x164 (4.0x50)		
Roll Area	yd² (m²)	178.6 (150) or 238.7 (200)		
Typical Truckload Quantity	Rolls	160-210		

- Notes
- Unless indicated otherwise, values shown are minimum average roll values determined in accordance with ASTM D4759-02. Brief descriptions of test procedures are given in the following notes.
 - Nominal dimensions.
 - True resistance to elongation when initially subjected to a load determined in accordance with ASTM D6637-01 without deforming test materials under load before measuring such resistance or employing "secant" or "offset" tangent methods of measurement so as to overstate tensile properties.
 - Load transfer capability determined in accordance with GRI-GG2-05 and expressed as a percentage of ultimate tensile strength.
 - Resistance to bending force determined in accordance with ASTM D5732-01, using specimens of width two ribs wide, with transverse ribs cut flush with exterior edges of longitudinal ribs (as a "ladder"), and of length sufficiently long to enable measurement of the overhang dimension. The overall Flexural Stiffness is calculated as the square root of the product of MD and XMD Flexural Stiffness values.
 - Resistance to in-plane rotational movement measured by applying a 20 kg-cm (2 m-N) moment to the central junction of a 9 inch x 9 inch specimen restrained at its perimeter in accordance with U.S. Army Corps of Engineers Methodology for measurement of Torsional Rigidity.
 - Resistance to loss of load capacity or structural integrity when subjected to mechanical installation stress in clayey sand (SC), well graded sand (SW), and crushed stone classified as poorly graded gravel (GP). The geogrid shall be sampled in accordance with ASTM D5818-06 and load capacity shall be determined in accordance with ASTM D6637-01.
 - Resistance to loss of load capacity or structural integrity when subjected to chemically aggressive environments in accordance with EPA 9090 immersion testing.
 - Resistance to loss of load capacity or structural integrity when subjected to 500 hours of ultraviolet light and aggressive weathering in accordance with ASTM D4355-05.
 - The polypropylene material used conforms to the specifications of ASTM Designation: D4101, Group 1 / Class 1 / Grade 2.

Maccaferri reserves the right to amend product specifications without notice and specifiers are requested to check as to the validity of the specifications they are using.



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