

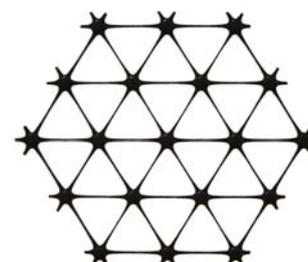
Tensar technical note
 TN_PR_Triax_TX_160/08.01.10

Performance-related Product Specification

Tensar TX 160 geogrid



Tensar TriAx Geogrid



General

1. The geogrid is manufactured in accordance with a management system which complies with the requirements of BS EN ISO 9001:2008.
2. The geogrid is manufactured from a punched polypropylene sheet, which is then oriented in three equilateral directions so that the resulting ribs of the triangular apertures have a high degree of molecular orientation which continues through the mass of the integral node.
3. The properties contributing to the performance of a mechanically stabilised layer are:

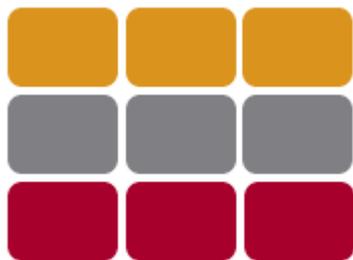
Geometrical	Longitudinal	Diagonal	Transverse	General
Rib pitch (mm)	40	40	-	
Mid-rib depth (mm)	-	1.8	1.5	
Mid-rib width (mm)	-	1.1	1.3	
Nodal thickness (mm)				3.1
Rib shape				rectangular
Aperture shape				triangular
Mechanical				
Junction efficiency (%) ^(1,9)				90
Aperture stability (N.mm/deg @ 500 N.mm) ^(2,9)				390
Isotropic stiffness ratio ^(3,8)				>0.75
Mean radial secant modulus at low strain (kN/m @ 0.5% strain) ^(3,10)				455±50
Durability				
Resistance of chemical degradation ⁽⁴⁾				96%
Resistance to weathering ⁽⁵⁾				98%
Resistance to oxidation				90%
Resistance to installation damage ⁽⁶⁾				>87%

Notes

1. Load transfer capability determined in accordance with GRI-GG2 and GRI-GG1 and expressed as a percentage of ultimate tensile strength.
2. In-plane torsional rigidity measured in accordance with U.S. Army Corps of Engineers Methodology for measurement of Torsional Rigidity, (Kinney, T.C. Aperture stability Modulus ref 3, 3.1.2000).
3. Stiffness, (secant modulus), is determined in a test conducted in any in-plane direction and which records the maximum and minimum values when tested in accordance with ISO 10319:1996
4. Resistance to loss of load capacity when subjected to chemically aggressive environments in accordance with testing to EN12960 as part of a durability assessment in accordance with ISO13434:1999 7.3
5. Resistance to loss of load capacity when subjected to ultra-violet light and weathering in accordance with testing to EN12224 as part of a durability assessment in accordance with ISO13434:1999 7.2
6. Resistance to loss of radial stiffness when subjected to the effects of installation from a graded engineering fill. The procedure is in accordance with BS 8006:1995 and the radial stiffness is derived as in Note 3.
7. All geometrical and durability values are quoted as typical.
8. Declared as the ratio between the minimum and maximum value on a sample at the 95% confidence limit.
9. Declared at 95% confidence limit.
10. Declared at mean ± standard deviation

Determination of the suitability of any information or material for the use contemplated or the manner of use is the sole responsibility of the user. **Tensar** is a registered trade mark

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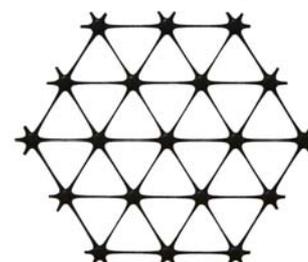
Tensar technical note
 TN_PR_Triax_TX_170/08.01.10

Performance-related Product Specification

Tensar TX 170 geogrid



Tensar TriAx Geogrid



General

1. The geogrid is manufactured in accordance with a management system which complies with the requirements of BS EN ISO 9001:2008.
2. The geogrid is manufactured from a punched polypropylene sheet, which is then oriented in three equilateral directions so that the resulting ribs of the triangular apertures have a high degree of molecular orientation which continues through the mass of the integral node.
3. The properties contributing to the performance of a mechanically stabilised layer are:

Geometrical	Longitudinal	Diagonal	Transverse	General
Rib pitch (mm)	40	40	-	
Mid-rib depth (mm)	-	2.3	1.8	
Mid-rib width (mm)	-	1.2	1.3	
Nodal thickness (mm)				4.1
Rib shape				rectangular
Aperture shape				triangular
Mechanical				
Junction efficiency (%) ^(1,9)				90
Aperture stability (N.mm/deg @ 500 N.mm) ^(2,9)				610
Isotropic stiffness ratio ^(3,8)				>0.75
Mean radial secant modulus at low strain (kN/m @ 0.5% strain) ^(3,10)				555±50
Durability				
Resistance of chemical degradation ⁽⁴⁾				96%
Resistance to weathering ⁽⁵⁾				98%
Resistance to oxidation				90%
Resistance to installation damage ⁽⁶⁾				>87%

Notes

1. Load transfer capability determined in accordance with GRI-GG2 and GRI-GG1 and expressed as a percentage of ultimate tensile strength.
2. In-plane torsional rigidity measured in accordance with U.S. Army Corps of Engineers Methodology for measurement of Torsional Rigidity, (Kinney, T.C. Aperture stability Modulus ref 3, 3.1.2000).
3. Stiffness, (secant modulus), is determined in a test conducted in any in-plane direction and which records the maximum and minimum values when tested in accordance with ISO 10319:1996
4. Resistance to loss of load capacity when subjected to chemically aggressive environments in accordance with testing to EN12960 as part of a durability assessment in accordance with ISO13434:1999 7.3
5. Resistance to loss of load capacity when subjected to ultra-violet light and weathering in accordance with testing to EN12224 as part of a durability assessment in accordance with ISO13434:1999 7.2
6. Resistance to loss of radial stiffness when subjected to the effects of installation from a graded engineering fill. The procedure is in accordance with BS 8006:1995 and the radial stiffness is derived as in Note 3.
7. All geometrical and durability values are quoted as typical.
8. Declared as the ratio between the minimum and maximum value on a sample at the 95% confidence limit.
9. Declared at 95% confidence limit.
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Determination of the suitability of any information or material for the use contemplated or the manner of use is the sole responsibility of the user. **Tensar** is a registered trade mark

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