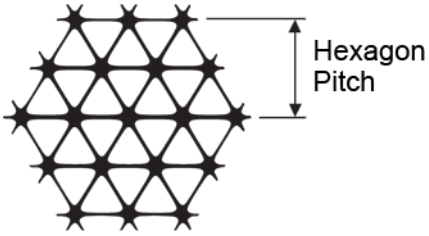
Tensar TriAx® Stabilisation Geogrid
Technical Data – TX170

This Tensar Technical Note provides parameters appropriate for the named Tensar TriAx geogrid for product identification purposes only. The parameters included relate to the stabilisation function of the Tensar TriAx product.

Model Specification documents are available from Tensar International. These include recommended clauses to assist Designers in the preparation of specification documents.

Technical Data

1. The primary geogrid function is stabilisation as defined by European Organisation for Technical Assessment (EOTA) European Assessment Document (EAD) 080002-00-0102.
2. The geogrid has European Technical Assessment (ETA) certification for the stabilisation of unbound layers by way of interlock with the aggregate.
3. The geogrid is manufactured in accordance with a management system which complies with the requirements of BS EN ISO 9001:2015.
4. The geogrid is manufactured from a punched and stretched polypropylene sheet. It shall have a hexagonal structure with ribs oriented in three directions. The resulting triangular-shaped apertures are defined by ribs of rectangular cross section having a high degree of molecular orientation which is continuous through the node.
5. The geogrid has a minimum of 2% finely divided carbon black content.
6. The properties contributing to the performance of a mechanically stabilised layer are:



Required certification for stabilisation function	European Technical Assessment (ETA) Certificate		ETA 12/0530	
Performance related physical properties of the product	**Product Characteristic**	**Unit**	**Declared Value**	**Tolerance**
	Radial Secant Stiffness at 0.5% strain[1]	kN/m	480	-90
	Radial Secant Stiffness Ratio[1]	-	0.80	-0.15
	Junction Efficiency[2]	%	100	-10
	Hexagon Pitch[3]	mm	80	±4
Durability Statement [5,6,7]	The minimum working life of the geogrid in natural soils with a pH value between 4 and 9 is assumed to be 100 years in soil temperatures less than 15°C and expected to be 50 years in soil temperatures less than 25°C, when covered within 30 days.			
Properties for identification of the product	Radial Secant Stiffness at 2% strain[1]	kN/m	360	-65
	Hexagon Pitch[3]	mm	80	±4
	Weight of the product[4]	kg/m^2	0.270	-0.035

ROADS AND PLATFORMS

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Notes

1. Measured in accordance with EOTA Technical report TR41 B.1.
2. Measured in accordance with EOTA Technical report TR41 B.2.
3. Measured in accordance with EOTA Technical report TR41 B.4.
4. Measured in accordance with EOTA Technical report TR41 B.3.
5. Resistance to weathering of geogrid assessed in accordance with EN 12224. The retained strength is greater than 80% giving a maximum time for exposure after installation of 1 month.
6. Resistance to Oxidation is determined in accordance with EN ISO 13438. For the assumed working life of 50 years, the principle of Method A2 of EN ISO 12438 is followed, with the deviation that the exposure temperature is 120°C and the exposure time 28 days. Justification for this is provided in ETA Certificate 12/0530.
7. Resistance to acid and alkali liquids is determined in accordance with EN 14030.

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