



TECHGRID TS

High Performance Geogrid Strips for Reinforced Soil Wall



TechGrid TS® Geogrid Strips an Alternative Product to Conventional Strips used in Reinforced Soil Wall

TECHGRID® TS CERTIFICATIONS

- ✓ ISO 9001 : 2010

PRODUCT TESTING

- ✓ SGI : USA
- ✓ TRI : USA
- ✓ BICS : UK
- ✓ BTRA: MUMBAI
- ✓ SASMIRA : MUMBAI
- ✓ BTGT : UK
- ✓ IIT

TECHGRID® TS APPLICATIONS

- ✓ Highways RE Walls
- ✓ Housing Area
- ✓ Bridge Abutments
- ✓ Railway Embankments
- ✓ River / Marine Structures



In the Backdrop

Before 1980's Reinforced Soil walls were constructed using Steel Strips as soil reinforcement. But in view of its corrosion and low pull out resistance, Engineers were exploring options for an alternative soil reinforcement material. In early 1980's Polymer based Geogrid was invented and since then has become a globally acclaimed and accepted engineered product suitable for Soil Reinforcement and also an equivalent alternative soil reinforcement option to the conventional steel strip used in Panel Fascia Reinforced Soil Walls.

About Techgrid® TS

Techgrid® TS , the first of it's kind , a Geogrid Strip to be manufactured in India, are knitted and PVC coated polyester Geogrid strips, produced at TechFab India's state-of-the-art facility at Silvassa, Dadra & Nagar Haveli.

Techgrid® TS are knitted and polymeric coated polyester uniaxial Geogrid strips, which are manufactured from select grades of high tenacity polyester yarns with molecular weight > 25,000 and carboxyl end groups < 30, to ensure high strengths, low creep and excellent durability. The yarns are formed into a dimensionally stable grid structure with uniform apertures using an advanced weft insertion warp knitting process, which is then given a tough and durable PVC coating to enhance dimensional stability, resistance to installation damage and durability.

TECHGRID® TS ADVANTAGE

- ✓ Corrosion Free
- ✓ High Tensile Strength
- ✓ Low Elongation
- ✓ Economical
- ✓ Easy Installation
- ✓ Eco-Friendly



TECHNICAL SPECIFICATION

PROPERTY	TEST METHOD	UNIT	TS	TS	TS	TS	TS	TS	TS	TS
			15	20	25	30	37.5	50	62.5	75
Ultimate tensile strength	ASTM 6637	kN	15	20	25	30	37.5	50	62.5	75
Equivalent Tensile Strength / Strap			60 x 20	80x 30	100x 30	120x30	140 x 30	200x30	260x30	300x30
Elongation at Break (Tolerance ± 4)		%	12	12	12	12	12	12	12	12
No of Ribs in Machine Direction			8	8	8	8	8	8	8	8
Reduction Factors and Long-term Design Strength (LTDS) – Machine Direction										
Creep (RF _{CR}) 120 years design life at 30° C temperature			1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
Installation damage (RF _{ID})	Sand/silt/clay		1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
	< 37.5 mm size gravel		1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15
Durability (RF _{CH})	pH = 4 to 9		1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15
LTDS – 120 years, Sand/silt/clay (kN)			8.3	11.0	13.8	16.5	21.0	27.6	34.2	41.4
LTDS – 120 years, Coarse Gravel (kN)			7.5	10.1	12.6	15.1	19.1	25.2	31.2	37.8
Roll Dimensions										
Strip length		m	100							
Strip width (Tolerance + 20 mm)		mm	230							

The information given in this data sheet is based on tests conducted at our in-house laboratory and independent accredited laboratories. While the information is presented as a true and accurate representation of the attributes of the products to the best of our knowledge, no expressed or implied warranties are made and Techfab (India) industries Ltd. assumes no responsibility or liability with regard to the use of this information.

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