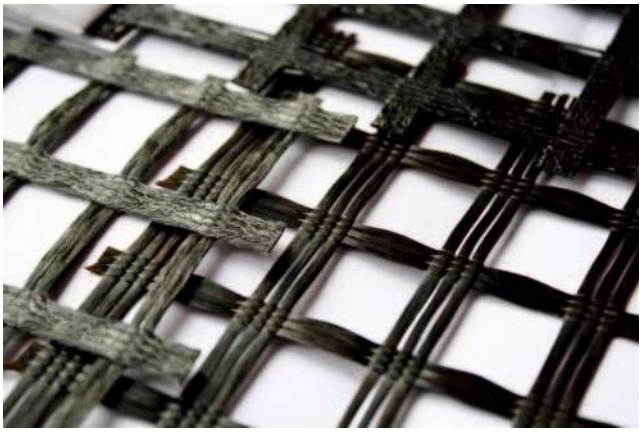
PVC COATED POLYESTER GEOGRID

NEW GENERATION SOIL REINFORCEMENT

Certificate No.: SPC20C4554

DESCRIPTION:

Geogrids are high strength oriented polymer grid structures used to reinforce soils & are made from high Tenacity Polyester yarns, when coated with Poly Vinyl chloride they make a strong, durable & dimensionally stable geogrid. Our product is highly recommended for reinforcement of soils & other granular materials for a wide variety of applications including soil retaining walls.



Maruti Geogrid™ has good tensile strength, low elongational ratio & high occlusive force with soil or gravel which is ideal for soil reinforcement purposes. Maruti Geogrid is resistant to UV rays, bacteria attacks, ageing resistant & has a product life of about 75 to 120 years.

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Typical Application:

- **Geogrid Reinforced Earth (RE) Walls.**
  Reinforced earth walls have emerged as a technically superior and cost effective alternative to conventional rigid concrete retaining structure.

Deterioration

- √ Ease and speed of installation-prefabricated materials and granular soil simplify construction.
- √ High static and dynamic load carrying capability.
- √ Low material and installation costs.
- √ Effective utilization of land.
- √ Pleasing appearance-panels maybe given a variety of architectural treatments.
- √ RE walls distribute loads over compressed soils and reducing the need for deep foundations.

Reinforced Earth Wall

Pavements:

Geogrids in aggregate-surfaced roads are used to support mechanical subgrade stabilization and aggregate base reinforcement.

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ADVANTAGES:

- Increase the passive bearing capacity of granular base course material.
- Prevent localized overstressing of the subgrade thus reducing pavement detroiration.
- Minimized base course thickness requirement.
- The grid structure provides optimum interaction in all types of soil.

Base reinforcement for paved roads

RAIL TRACK SUPPORT:

Geogrids can be used for reinforcement of a granular sub-base layer beneath the railway ballast to increase the bearing capacity of the track foundation.

ADVANTAGES:

- Maintain track geometry for longer.
- Reduce the rate of ballast settlement.
- Reduce maintenance induced ballast deterioration.
- Extend the maintenance cycle by a factor of around three.
- Stabilize ballast for over 25 yers.

Base reinforcement for railway tracks

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DATA SHEET

MARUTI GEOGRID BIAXIAL (MGB)

Product Name								
		MGB15	MGB30	MGB40	MGB60	MGB80	MGB90	MGB100
Mechanical Properties ASTM D 6637								
Ultimate Tensile Strength (kN/m)	MD	15	30	40	60	80	90	100
	CD	15	30	40	60	80	90	100
Tension at 2% Elongation (%)	MD	3	6.5	8.5	10	10.5	12	13.5
	CD	3	6.5	8.5	8.5	9	10	12
Tension at 5% Elongation (%)	MD	5	11	14.5	16	23	26	30
	CD	5	11	14.5	16	21	22	27
Aperture size (mm)	MD X CD	26X26	25x25	25x25	25x25	23X23	23X23	22X22
Reduction Factors & LTDS (Long Term Design Strength)								
RF_{CR}	120 Yrs life, 20°C temp	1.46	1.46	1.46	1.46	1.46	1.46	1.46
RF_{CR}	120 Yrs life, 40°C temp	1.57	1.57	1.57	1.57	1.57	1.57	1.57
RF_{D}	pH = 4 to 9	1.1	1.1	1.1	1.1	1.1	1.1	1.1
RF_{ID}	Sand/Silt/Clay	1.10	1.10	1.10	1.10	1.10	1.10	1.10
	<38mm Gravel	1.15	1.15	1.15	1.15	1.15	1.15	1.15
LTDS (sand/silt/clay); pH=4-9		8.16	16.31	21.75	32.62	43.50	48.93	54.37
LTDS (Gravel<38mm); pH=4-9		7.8	15.60	20.80	31.20	41.60	46.80	52.00

Standard Roll Dimensions	Roll Length (m)	50/100	Roll width (m)	1/2/2.5/5.0

** Disclaimer : The above information is to the best of our knowledge accurate, but it is not intended to be considered a guarantee. Any implied warranty for a particular use or purpose is excluded.

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DATA SHEET

MARUTI GEOGRID UNIAXIAL (MGU)

Product Name										
			MGU 40	MGU 60	MGU 80	MGU 100	MGU 120	MGU 150	MGU 200	MGU 250	MGU 300
MGU Mechanical Properties ASTM D 6637											
Ultimate Tensile Strength (kN/m)	MD		40	60	80	100	120	150	200	250	300
	CD		20	20	30	30	30	30	30	30	30
Aperture size (mm)	MD X CD		28X24	28X24	28X24	28X22	28X22	28X22	28X21	28X21	28X21
Reduction Factors & LTDS (Long Term Design Strength)											
RF_{CR}	120 Yrs life	20°C Temp	1.46	1.46	1.46	1.46	1.46	1.46	1.46	1.46	1.46
RF_{CR}	120 Yrs life	40°C Temp	1.57	1.57	1.57	1.57	1.57	1.57	1.57	1.57	1.57
RF_{D}	pH = 4 to 9		1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
RF_{ID}	Sand/Silt/Clay		1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
	<38mm Gravel		1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15
LTDS (sand/silt/clay); pH=4-9			21.75	32.62	43.50	54.37	65.25	81.55	108.74	136.00	163.10
LTDS (Gravel<38mm); pH=4-9			20.80	31.20	41.61	52.00	62.41	78.00	104.01	130.02	156.00

Standard Roll Dimensions	Roll Length (m)	50/100	Roll width (m)	1/2/2.5/5.0

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WHY MARUTI GEOGRIDS:

- We have incorporated advanced multispeed machine for high quality geogrid production, which enables us to produce geogrids with very high junction strength.
- Maruti geogrids are produced from high molecular weight, low CEG, high tenacity polyester (PET) yarns with :
  ->Average Molecular Weight >25,000

  ->Carboxyl End Groups<30.
- Our geogrids are inert to environmental effects, and retains high strength for about 75-120 years, depending upon project design and requirements.