MARUTI TOUGHSTRAP

Certificate No.: SPC20C4553

Maruti Toughstrap is planar structures consisting of a core of high tenacity polyester yarn tendons in a polymer sheet. The strips are suitable for reinforcement application in combination with concrete wall facing panels.

They are amongst the most tried and tested tough straps in the world offering 120 year of design life and high perfomance. The incredibly tough polymer sheet is resistant to physical, chemical and biological conditions found in reinforced soil structures.



(A) Maruti Toughstrap features

- Standard tensile strength up to 100 kN or as per End User's requirement.
- High modulus.
- Tough, durable polymer sheet.
- Low creep characteristics.
- Easy to install.
- Highly resistance to chemicals, micro-organism, UV radiation and damage.



Advatages

1. Strip system is not erected to all soil slope.
2. Due to light weight, it makes easy carriage and application.
3. This system is flexible against design change in accordance with job site condition.



Packing & Label

1. Each grade is indentified by a colour adhesive tape, sticker, hologram and batch number for traceability of grade.
2. Each coil is 100 ± 0.1 mtr. or as per end user's requirement.

TECHNICAL DATA SHEET

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Geostrap	30kN	40kN	50kN	60kN	75kN	85kN	100kN
Strap width (mm)	85±3	85±3	90±3	90±3	90±3	92±3	95±3
Strap Thickness (mm)	1.85-1.95	1.85-2.15	1.85-1.95	1.85-2.15	1.85-2.15	1.85-2.40	1.85-2.40
Ultimate tensile strength (UTS)	>30 kN	>40 kN	>50 kN	>60 kN	>75 kN	>85 kN	>100 kN
Elogation at Break (%)	Max 15%	Max 15%	Max 15%	Max 15%	Max 15%	Max 15%	Max 15%
Long Term Tensile (70% of UTS at 20°C, 120 year design life)	25.50 kN	34.00kN	42.50 kN	51.00 kN	63.75 kN	72.25 kN	85.00 kN
Consistency of manufacturing	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Extrapolation to 120 year design life	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Baseline COV	1.10	NA	NA	NA	0.90	NA	NA
#57 stone COV	3.40	NA	NA	NA	1.30	NA	NA
Coarse sand COV	0.70	NA	NA	NA	0.50	NA	NA
Durability reduction factor (Rfd)	1.21	1.21	1.21	1.21	1.21	1.21	1.21
Insatallation damage reduction (Rfid)	1.05	1.05	1.03	1.03	1.03	1.05	1.05
Creep Reduction factor (Recrp)	1.43	1.43	1.43	1.43	1.43	1.43	1.43
Coverage Ratio, Rc (with 2 strips per rmt.)	0.17	0.18	0.18	0.18	0.18	0.18	0.18
Pull-out Resistance at stress							
a) At 25 kpa	29.07	30.81	31.82	33.26	33.26	33.89	34.89
b) At 50 kpa	63.95	65.10	59.09	64.21	64.21	65.11	63.89
c) At75 kpa	91.86	91.62	90.91	92.05	92.86	93.45	94.55
Cpefficient of interaction, Ci	0.78 to 0.91						
Environmetal degradation, pH range 4.0 to 9.0	1.21						
LTDS	18.176	NA	NA	NA	46.45	NA	NA
Soil Types : 1. Soil type I : Coarse crushed gravel (Dmax = 75.0mm, D_{50}=12.5mm) 2. Soil type II : Concrete sand (Dmax = 25.0mm, D_{50}=0.850mm) 3. Soil type III : Silty sand (Dmax = 25.0mm, D_{50}=0.150mm)							
Physical Dimensions							
Overall Length	100±0.1 mtr.	100±0.1 mtr.	100±0.1 mtr.	100±0.1 mtr.	100±0.1 mtr.	100±0.1 mtr.	100±0.1 mtr.
OD	19.30"	20.67"	21.66"	22.45"	23.23"	24.02"	25.60
Packing Colour Code	White	Red	Brown	Green	Orange	Blue	Yellow



