

Polyfelt TS Heavy Duty Nonwoven Geotextiles

Properties of Polyfelt TS Heavy Duty Nonwoven Geotextiles

| Property | Test Standard | Unit | TS 006 | TS 007 | TS 008 | TS 009 |
|---|-------------------|-------------------------------|--|------------|------------|------------|
| Physical Characteristics | - | - | Continuous filament, nonwoven needle punched | | | |
| Polymer | - | - | 100% polypropylene, UV stabilized | | | |
| UV Resistance | | | | | | |
| - Tensile strength retention | ISO 10319 | - | > 70% Strength retention after 3 months outdoor weathering | | | |
| - Puncture strength retention | ISO 12236 | - | > 70% Strength retention after 3 months outdoor weathering | | | |
| Chemical Resistance | | | | | | |
| No influence at pH range 2 - 13 | | | | | | |
| Tensile strength (ave) | ISO 10319 | kN/m | 34 | 40 | 42 | 45 |
| Tensile elongation (MD/CD) | ISO 10319 | % | 80/50 | 80/50 | 80/50 | 80/50 |
| Performance energy * | Calculated | kN/m | 11.00 | 12.00 | 13.50 | 14.50 |
| CBR puncture strength | ISO 12236 | N | 5400 | 6200 | 7200 | 7800 |
| Dynamic drop cone puncture (diam) | ISO 13433 | mm | 13 | 11 | 10 | 9 |
| Effective opening size (O ₉₀) | ISO 12956 | mm | 0.08 | 0.08 | 0.07 | 0.07 |
| Vertical water flow 50mm head | ISO 11058 | l/m ² /s (mm/s) | 42 | 36 | 31 | 27 |
| Horizontal water flow in plane | 20 kPa 200 kPa | ISO 12958 ISO 12958 | 21 4.00 | 24 5.00 | 28 6.00 | 33 7.00 |
| Nominal mass | ISO 9864 | g/m ² | 500 | 600 | 700 | 800 |
| Thickness 2 kPa | ISO 9863 | mm | 4.00 | 4.50 | 5.30 | 6.00 |
| Grab strength (MD/CD) | ASTM D 4632 | N | 2350/2150 | 2900/2900 | 3300/3100 | 4000/3700 |
| Grab elongation (MD/CD) | ASTM D 4632 | % | 80/50 | 80/50 | 80/50 | 80/50 |
| Rod puncture resistance | ASTM D 4833 | N | 850 | 1000 | 1150 | 1300 |
| Apparent opening size (O ₉₅) | ASTM D 4751 | mm | < 0.075 | < 0.075 | < 0.075 | < 0.075 |
| Permittivity | ASTM D 4491 | s ⁻¹ | 0.95 | 0.85 | 0.70 | 0.60 |
| Form of supply | | | | | | |
| Width | | m | 4 | 4 | 4 | 4 |
| Length | | m | 75 | 65 | 55 | 45 |
| Area | | m ² | 300 | 260 | 220 | 180 |
| Weight of roll | | kg | 160 | 166 | 164 | 154 |

* Performance energy indicates the ability of the geotextile to absorb construction stress

* Performance energy = 1/2 (energy MD + energy CD) where

Energy MD = 1/2 (tensile strength MD x elongation MD)

Energy CD = 1/2 (tensile strength CD x elongation CD)

Other forms of supply as well as grades, adjusted to the requirements of the project, are available on request.

The values given are indicative and correspond to average values obtained in accredited testing laboratories and institutes.

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