

Technical Data Sheet

BCS D-L-DRY

Basalt continuous filaments roving is chopped to lengths for the production of mats and the reinforcement of composites.

BCS : Basalt Chopped Strand

The first code D indicates the monofilament diameter : 10-19 µm

The second code L indicates the chop length : 1/8", 1/4", 1/2", 1", 2", 3.5"

The third code DRY indicates the sizing.

The good mechanical properties of BCF (strength & rigidity), the easy wetting of the filament surface and their recyclability make them particularly suitable for said composites application.

Six chopped lengths are proposed. A standard sizing ensures good adhesion to phenolic and epoxy resins. Other sizings can be proposed as options under customer order.

| Sizing/binder suitability table | | | | | |
|---------------------------------|------------|-----------|-------|----------|----------|
| Binder material: | | | | | |
| | vinylester | polyester | epoxy | phenolic | PP/PE/PA |
| | 3 | 2 | 1 | 1 | 2 |

1: best - 2: OK - 3: not OK

| Property | Standard/Method | Unit | Value | Tolerance |
|-------------------------------------|----------------------|--------------------|--|-----------|
| Base material | | | | |
| Density of unsized filament matl | | kg/dm ³ | 2.67 | + 5% |
| Moisture content of basaltic rock | | % | 0.1 | + 0.05 |
| Melting point | | °C | 1350 | + 100 |
| Roving | | | | |
| Filament diameter range* | ASTM D578-2000 - §26 | µm | 10-19 | |
| Sizing type | | | silane | |
| Filament breaking load | ASTM D2256-97 | cN/tex | > 85 - 67 | |
| Elongation at break | | % | 2.8 | + 10% |
| E-Modulus | | GPa | 84 | + 3% |
| Continuous max temperature | | °C | -250°C to 550°C 1200°C fire barrier | |
| Moisture content (sized roving)* | ISO 3344:1997 | wt% | ≤ 0.1 | |
| Ignition loss, also sizing content* | ISO 1887:1995** | wt% | ≥ 0.3 | |
| Combustibility | NF P92-503 (1995) | M0 | Pass | |
| UV stability | ISO 105-B02 | | 6 | |
| Colour fastness | ISO 1005-BX12 | | 6 | |

* properties are given on the "Certificate of Conformance" coming with each product delivery

**after drying according ISO 3344:1997

Packaging

The chopped basalt filaments are put in a PP bag inside an hexagonal cardboard box, with identification label. The box is securely strapped to a pallet. Total weight is about 500 kg. On request, the chopped basalt filaments might be available in bags of 20 – 25kg..

Product Stability:

BASALTEX™ Products have not been designed for full external exposure conditions and cannot be guaranteed for use in such situations. However, these BASALTEX™ products have considerable tolerance to damp conditions and occasional water immersion. After drying out, the product will give the same level of performance as the original sample.

Stability over time:

Said products not being subjected to excessive heat, wear and abrasion, all evidence obtained to date indicates that their performance should not significantly change over a significant period of time.

It is the responsibility of the developer of the end-product, finished device or system to test its performance in the end-application.