

KV11 Roving series

Roving nomenclature.

Example: BCF 13-1200-KV11 Int.
BCF - basalt continuous filaments.
13 - monofilament diameter [μm].
1200 - linear density [tex].
KV11 – type of sizing.
Int./Ext – type of bobbins.
Int. – bobbin for internal unwinding (tubeless).

Ext. – bobbin for external unwinding, wound on a tube with 76 mm internal diameter and 270mm length.



Processing.

Basalt roving of this series is mainly recommended for filament winding, pultrusion, processing into woven fabrics, UD tapes and multiaxial fabrics, prepregs and other products based on polyester, vinyl ester and epoxy resins.

Product description.

Property	Description
Type of fiber	Basalt
Monofilament diameter [μm]	10-20
Linear density [tex]	270-4800 ($\pm 5\%$)
Type of sizing	silane
Sizing content (% wt.)	≥ 0.4
Resin compatibility	Polyester, vinyl ester
Moisture content (% wt.)	< 0.1

Mechanical properties.

Properties in epoxy impregnated strand (ASTM D2343)	
Tensile strength, MPa	
for 270-900 tex	3000-3200
for 1200-1600 tex	2800-3000
Tensile modulus, GPa	85-90

Tensile strength of dry fiber (ASTM D3822)	
Tensile strength, mN/tex	
for 9-10 μ m	≥ 700
for 13 μ m	≥ 650
for 17 μ m	≥ 600
for 22 μ m	≥ 500

Applications.

High pressure vessels, CNG cylinders, boat building, bridge profiles, concrete reinforcing bars, fabrics for sound and heat insulation and for corrosion applications.

Packaging information.

Type of bobbins	Amount of roving, kg
Bobbin for internal unwinding	3; 5; 9
Bobbin for external unwinding	3; 5; 8

Roving is supplied on a 120x80 cm pallet with 2-4 layers, each bobbin wrapped in thermo retractable film.

On a 4-layered pallet 192 bobbins of 3 kg or 140 bobbins of 5 kg or 96 bobbins of 8 kg or 88 bobbins of 9 kg of assembled roving could be supplied.