

KV12

Direct roving series

Roving nomenclature.

Example: BCF 13-150-KV12 Direct
BCF - basalt continuous filaments.
13 - monofilament diameter [μm].
150 - linear density [tex].
KV12 – type of sizing.



Processing.

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

Product description.

Property	Description
Type of fiber	basalt
Monofilament diameter [μm]	10-20
Linear density [tex]	68-350 ($\pm 5\%$)
Type of sizing	silane
Sizing content (% wt.)	≥ 0.4
Resin compatibility	Epoxy and phenolic
Moisture content (% wt.)	< 0.1

Mechanical properties.

Properties in epoxy impregnated strand (ASTM D2343)	
Tensile strength, MPa	2900-3200
Tensile modulus, GPa	
for 10 μm	90-94
for 13 μm	88-92
for 17 μm	86-90
for 20 μm	84-88

Tensile strength of dry fiber (ASTM D3822)	
Tensile strength, mN/tex	
for 9-10 μm	≥ 750
for 13 μm	≥ 700
for 17 μm	≥ 650

Applications.

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

Packaging information.

Type of bobbins	Amount of roving, kg
Direct roving bobbin, internal diameter 200 mm, height – 255 mm	
68 tex	3-4
90 tex	4
105-350 tex	5

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

On a 4-layered pallet 60 bobbins of 3 kg or 56 bobbins of 5 kg direct rovings could be supplied.