

## STAPLE BASALT FIBER

Basalt ‘chopped’ fiber is continuous filament cut to predetermined lengths to suit a particular application.

They are usually coated with a sizing/binder to make them compatible with other materials and elements with which it has to coexist the primary end product (concrete mix, for instance).

The ability of the basalt fiber to accept sizing is good. This is known as ‘wetout’.

- High tensile strength
- Alkali resistant
- High thermal conductivity
- No carcinogenic risk or other health hazards
- Completely inert with no environmental risks
- Resistant to acids and aggressive chemicals
- High E modulus resulting in excellent specific tenacity, three times that of steel fiber
- Good fatigue resistance
- Electro-magnetic resistant

### Typical uses for chopped fiber strands:

- Basalt is the best reinforcement for concrete due to its tensile strength and natural resistance to deterioration from alkali
- Reinforcement for composites, polyester/epoxy resins and plastics as used in automotive body panels, boat hulls and pultruded products, etc.
- Friction materials such as brake pads and linings
- Manufacture of basalt mat/felt
- High-temperature insulation applications
- Passive fire protection materials
- Filler for gypsum and sheetrock board requiring increased ‘burn-thru’ capability, to meet building regulations
- High-performance automotive muffler filler

### Technical Data:

Thermal limits of application	-260°C/-436°F to +982°C/1800°F
Vitrification temperature	1050°C/1922°F
Melting temperature	1450°C/2642°F
Density	2600/2800 kg/m <sup>3</sup>
Filament diameter	9 to 23 microns (depending on end use)