



## BasaMix™ Chopped Basalt Fiber

**BasaMix™** Basalt Fiber is the next generation of composite fiber for use as reinforcement in cementitious materials. BasaMix™ is an extremely fine, high tenacity fiber with a similar chemical composition as fiberglass, but with better strength characteristics. And unlike most glass fibers, it's naturally resistant to alkaline, acidic and salt attack – making it an excellent candidate for applications subjected to harsher environments and shoreline structures.

**BasaMix™** provides a three-dimensional, isotropic reinforcement and a consolidation of the fresh concrete matrix. When introduced into any cementitious mix, the fibers provide “Built In” reinforcement as they rapidly and uniformly disperse throughout the entire mix - when mixed according to ASTM C94.

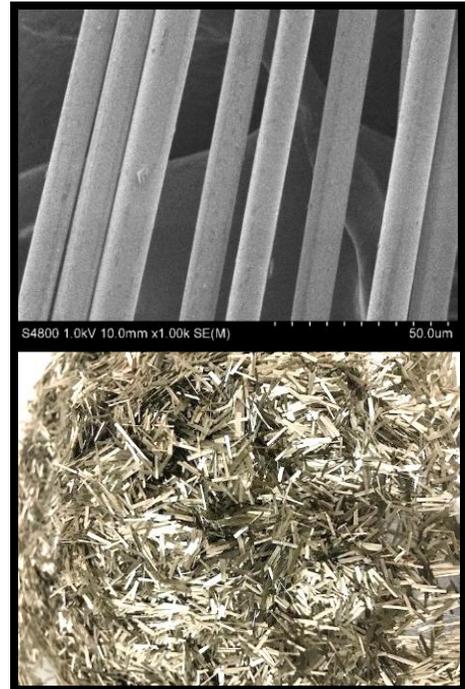
Compared with other high-end fibers like carbon and aramid, BasaMix features a wider working temperature range, from -452°F to 1,200°F (-269°C to >650°C); with higher oxidation resistance, higher radiation resistance, better compressive strength and a higher shear strength. All of this at a much lower cost as well.

### Primary Benefits of Selecting Basalt Fiber:

- High chemical resistance - including resistance to strong concentrated acids
- High thermal resistance and stability
- Excellent mechanical strength, abrasion resistance and elasticity
- High thermal and acoustic insulation properties
- Excellent adhesion to polymer resins and rubbers
- High electrical insulating properties
- Ecologically clean and non-toxic to the end user;
- Non-corrosive; basalt fibers will never rust

### Physical Properties

Density	2.63 g/cm <sup>3</sup>
Filament Diameter (µm)	17
Moisture Content	< 0.1%
Tensile Strength (ASTM D2343)	3000 MPa
Tensile Modulus (ASTM D2343)	86 to 90 GPa
Tenacity	>60 cN/tex
Elongation at Break (%)	3.5



Additionally, the coefficient of thermal expansion and contraction is more similar to the Concrete and its internal aggregates than that of steel or other polymer-based fibers; making BasaMix a more homogenous reinforcing product within the concrete matrix. And, when combined with **BasaFlex™**, our BFRP Rebar, you've engineered a 100% non-corrosive reinforcement system; causing a 100+ year concrete lifecycle!



2041 NW15<sup>th</sup> Avenue | Pompano Beach, FL 33069  
954.532.4653 | www.BasaniteIndustries.com



**BasaMix™** Chopped Basalt Fibers are manufactured in compliance with building codes and ASTM C-1116 “Standard specification for fiber reinforced concrete and shotcrete.” One of their primary engineered attributes is for the purpose of preventing and managing cracking issues.

### Preventing & Managing Cracking Issues in SOG And Precast Elements

- Effectively Prevents the Cracking Mechanism from propagating (PSCR - Plastic Shrinkage Crack Reduction and Plastic Settlement Cracking) by intersecting the micro-crack and absorbing that energy. This happens 100’s of millions of times throughout the entire matrices within the first 24 hours.
- By rendering the crack “Ineffective”, the fibers allow the composite behavior to carry even more load – beyond the concrete’s original design strength.
- By reduces the post-crack opening and helping to transfer the load – they’re increasing the Concrete’s Tensile Capacity, Ductility and Toughness (a.k.a. Residual Strength)
- The use of BasaMix helps the concrete to better absorb and dissipate the external stresses associated with impact, fatigue, freeze/thaw changes, cyclical loading, handling, and transportation.



### Typical Applications

- Residential & Industrial Slabs on Grade & Warehouse Flooring
- Precast Products, Prefabricated Concrete Homes
- Engineered Cementitious Composites; BFRC
- Coatings, Overlays and White Toppings
- Architectural and Lightweight Concrete
- Shotcrete and Sprayed Applications
- Stucco and Plastered Cement; Exposed Aggregate, Colored & Stamped Concrete
- Harsh Environments: Wastewater Treatment, Chemical Plants & Hydraulic Structures
- Asphalt, Micro-Surfacing & Slurry Seal; Patch and Repair

#### Disclaimer of Warranties & Limitation of Liability

Seller and Manufacturer do not make any warranty of any kind regarding this product, either express or implied, including without limitation, any implied warranty of merchantability, fitness for a particular purpose, condition, design, or quality. Buyer’s exclusive remedy, and the seller’s and the manufacturer’s exclusive liability for any claims, losses, damages, or injuries resulting from the use of this product, shall be limited to the replacement of the product with respect to which damages are claimed. In no case shall the seller or the manufacturer be liable for direct, consequential, special, incidental, punitive, or indirect damages resulting for the purchase or use of this product. Buyer accepts this product subject to this foregoing disclaimer, and purchases and uses this product at buyer’s own risk. No employee, or agent of seller, or the manufacturer is authorized to vary the terms of this disclaimer in any manner.