Elitewool® Functional Fiber

Washed Fiber and Milled Fiber

As the refined inorganic material, Elitewool® Functional Fibers are developed for variety of industrial and commercial applications. Elitewool® Bulks are available in variety of chemistries and diameters which can provide the better high-temperature stability and consistent properties.

By using the advanced dry or wet shot (Unfiberized material is called shot) removal technology, Elitewool® Bulk or Chopped Fiber can be modified to Elitewool® Washed Fiber with high fiber index [(1)] from 70% up 95+%. These fibers can be used for automotive brake lining and other friction materials, also can be used for Coatings, Mastics, Adhesives, Fire Protective Materials. These high index fibers provide a variety of desirable properties such as:

- High-temperature frictional performance
- Flexural reinforcement
- High-temperature stability
- Low coefficient of thermal expansion
- Superior chemical resistance
- Very low moisture absorption

Elitewool® Milled Fibers are ball milled from Elitewool® Bulk to reduce fiber length, thus increasing the flow ability and facilitating its dispersion in a matrix, such as resins or refractory cement compositions. Elitewool® Milled Fibers can also be used as a compact filler insulation. These milled fibers can be used as a functional additive in a variety of coatings and compositions to provide the following benefits:

- Superior wear resistance
- Improved corrosion resistance
- Provides reinforcement and excellent compressive strength

Typical Product Properties

Product Chemistry	**80C**	**80B**	**90B**	**X90**	**HZ80/90**
Fiberized	Spun	Double Blow	Double Blow	Spun	Spun
Color	Light Gray	White	White	White	White
Chemistry	Mineral	High Alumina	High Alumina	Crystal	High Zirconia
Temperature Grade	1260°C	1260°C	1260°C	1260°C	1430°C
Average Fiber Diameter	2.5 to 5 microns	2.5 to 3.5 microns	2.5 to 3.5 microns	2.3 to 4 microns	2 to 4 microns
Amorphous Content				67.1 to 72.9 %	
Chemical Composition					
Al_2O_3	43 to 45 %	45 to 52 %	45 to 52 %	50 to 58 %	33 to 37 %
SiO_2		48 to 53 %	48 to 53 %	42 to 50 %	
Al_2O_3+ SiO_2	98%				
ZrO_2					13 to 15 %
Al_2O_3+ SiO_2+ ZrO_2					>=99 %
Fe_2O_3		<=0.3 %	<=0.3 %		<=0.2 %
Na_2O+K_2O		<=0.25 %	<=0.25 %		<=0.25 %
Others	<3 %				
Typical Parameters					
Fiber Index(1)	70 to 80 %	80 %	90 %	90 to 95 %	80/90 %
Chopping	None/Coarse/Medium/Fine				
Beaker Value(2)	150-750				

We also can supply AES Elitewool® Washed and Milled Fiber for environment regulations of global markets.

Date are average results of tests conducted under standard procedures and are subject to variation. Result should not be used for specification purposes.

(1) Fiber Index is the percentage of fiberized material by weight in a fiber. Unfiberized material is called shot. (i.e., higher fiber index indicates a “cleaner” fiber). Fiber index is measured using the conical elutriation method.

(2) Beaker value is a measurement used to indicate the physical dimensions (i.e., diameters, length) of a fiber. A larger number indicates the fiber has larger physical dimensions, such as diameter and/or length.

For questions regarding the testing, or additional information about product performance or to identify the recommended product for your application, please contact with Shanghai Mint at business@mintrefractories.com.