

BASFIBER® REINFORCING MESH

Basalt reinforcing mesh is designed for reinforcing road and highway overlays to prolong the pavement lifespan by reducing the effects of reflective cracking caused by traffic loading, age hardening and temperature cycling. Pavement life between maintenance can be prolonged significantly. Basalt reinforcing mesh makes it possible to reduce thickness of asphalt concrete pavement up to 20%.

Basalt Fiber Tech offers two different types of basalt reinforcing mesh, the mesh with window size of 25 x 25mm and opens cells and the size of 30mm x 30mm with closed cells. We also offer reinforcing scrim with window size of 3.5 x 3.5mm.

Basalt reinforcing mesh with alkali resistant coating were developed to prevent cracks forming in different applications in construction industry as well as for reinforcement of mortars and non load bearing concrete. The higher tensile strength of this product compared to E-glass or steel increases impact resistance and prevents from cracks appearance. This mesh can meet the expectations and strict requirements of most demanding companies from construction market. Our high-performance, alkali-resistant basalt mesh will not rot, rust or corrode, and provides increased strength in different cementitious applications. Thanks to its lightweight, easy install and use basalt mesh will be superior alternatives to steel.

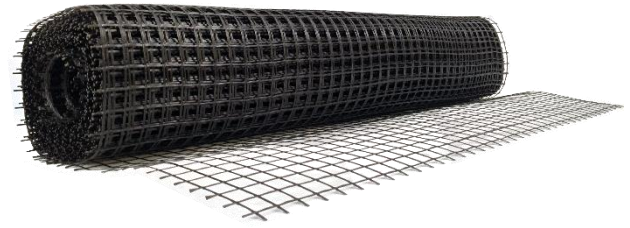
We can develop customized sizes and density of reinforcing mesh according to customer requirements.

NOMENCLATURE

Our nomenclature is based on three letter followed by three numbers.

Example: MSH-220

The first letters will be MSH for reinforcing mesh and SCR for the reinforcing scrim. The number represents the surface density of the mesh in grams by square meters.



THERMAL PROPERTIES

Melting Range:	1460-1500°C
Crystallization temperature:	1250 °C
Sintering Temperature:	1050 °C
Thermal Conductivity, W/(m·K)	0.031-0.038

MECHANICAL PROPERTIES:

WEAVE	MESH 220	MESH 320	SCRIM - 100
Mesh window size (mm)	25 x 25	30 x 30	3.5 x 3.5
Surface Density (sqm)	220 ±10	320 ± 10	100 ±15
Density (yarns/m) (Warp):	40±2	40±2	40±2
Density (yarns/m) (Weft):	40±2	40±2	40±2
Breaking Load (kN/m) (Warp):	>50.0	>50.0	> 1300
Breaking Load (kN/m) (Weft):	>50.0	>50.0	> 1300
Elongation at break (%)	2.5 ±1%	2.5 ±1%	2.5 ±1%
Roll Width (m):	1, 2 or 4	1, 2 or 4	1
Roll length (m):	50 and +100	100	100
Cell Type:	Open	Closed	Open

COMPARISON BETWEEN BASFIBER® AND OTHER FIBERS

PROPERTIES OF SINGLE FILAMENTS <ASTM D 2101>	BASFIBER®	E-GLASS	AR GLASS	POLYPROPYLENE
Tensile Strength (MPa)	4000-4300	3450-3800	3500	450-600
Tensile Strength (GPa):	84-87	72-76	72	13

ADVANTAGES AND BENEFITS

Specially developed coating provides good adhesion with concrete to improve tensile strength and increase impact resistance. High mechanical strength and modulus. High resistance to chemical aggressive environment and in particular high alkali resistance will not allow to appear of rust or corrode. Minimizes crack width and spread. Easy to install and use. No special equipment is required. Extremely low coefficient of heat conductivity significantly reduces heat transfer from building exteriors to interiors and significantly improves energy efficiency. Much higher electrical resistance compared to steel. Higher mechanical strength and modulus, more resistive to chemical aggressive environment than E-glass mesh. The melting point of basalt fibers is 1450°C. Typical paving temperatures will not cause any loss of strength or distortion which may occur with synthetic material. Lower application temperature than for synthetic material that is especially important for north region. Lower elongation before brake than for synthetic material. Easily milled using typical milling equipment. Does not stretch and pull as polymer meshes. No special equipment is required to install the reinforcement. Basalt mesh is environment friendly and based on naturally occurring material that is found worldwide.

PACKAGING

Standard roll length amounts to 50 m (other lengths available on request). Tube interior diameter is 76 mm. Reinforcing Mesh rolls are individually wrapped in foil and delivered on a pallet.

STORAGE

Basfiber® reinforcing mesh should be stored in the package at the stock (indoor conditions). Rolls should be placed parallel to each other.

Disclaimer of Liability: This data is offered solely as a guide in the selection of reinforcement. The information contained in this publication is based on actual laboratory data and field test experience. We believe this information to be reliable, but do not guarantee its applicability to the user's process or assume any liability arising out of its use or performance. The user, by accepting the products described herein, agrees to be responsible for thoroughly testing any application to determine its suitability before committing to production. It is important for the user to determine the properties of its own commercial compounds when using this or any other reinforcement.

