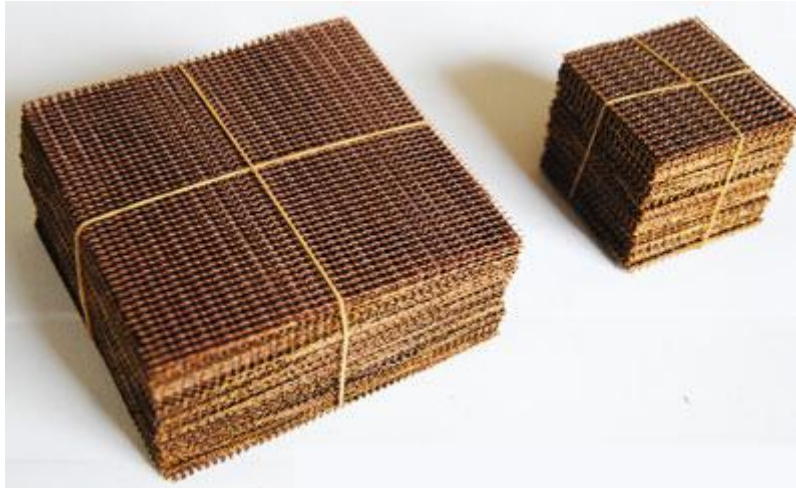


## High Silica Fiberglass Mesh Filters



Above - standard resin coated high silica mesh (dark brown colour)

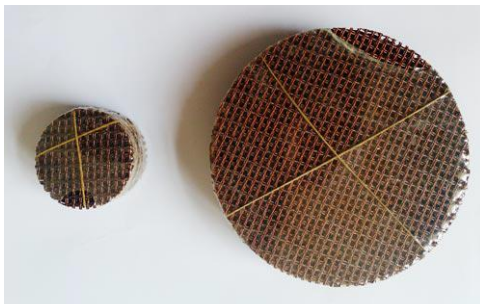
**H**igh silica fiberglass mesh filter are woven with high silica fiberglass yarn and coated with a special resin. These filters can effectively remove slag, refractory particles and non-metallic inclusions from molten metal.

Made from specially treated silica yarns, silica mesh filter are capable of withstanding pouring temperatures up to 1620 degrees C (2948 degrees F).

Silica mesh filters are ideal for in-mold filtration of gray, malleable, white, compacted graphite and ductile cast irons, as well as non-ferrous aluminium and copper-based metal alloys and many types of small scale steel casting filtration.

### Main Types

- ❖ **Standard Resin Coated** (dark brown colour) thin and thick types
- ❖ **Premium Smokeless Carbonized Treated** (black colour) -- mesh is more flexible, and has a higher working temperature; up to 1640 degree C (2984 degrees F). No smoke during touching with molten metal, environment friendly, better heat resistant strength than the standard type, and much lower gas emission during use
- ❖ **Thin type** (160 to 180 g/m<sup>2</sup>) carbonized and standard
- ❖ **Thick type** (520 to 580 g/m<sup>2</sup>) carbonized and standard



Above - standard resin coated high silica mesh (dark brown colour)

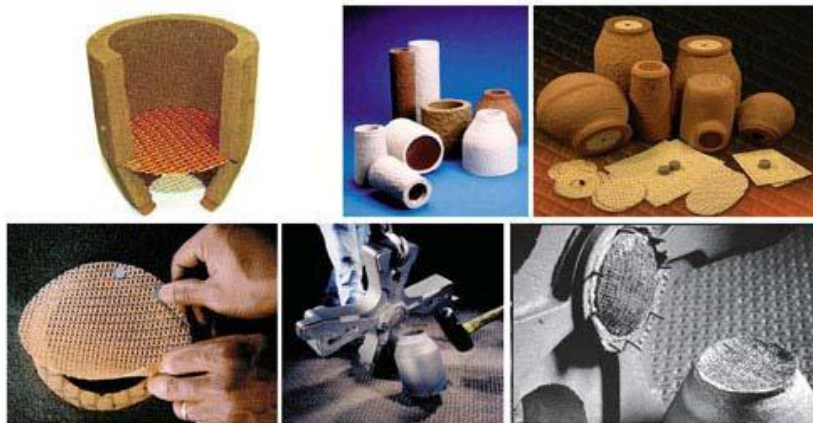


Above - smokeless carbonized treated - premium type (black colour)

## Specifications

- ❖ Yarn type: high silica fibreglass
- ❖ SiO<sub>2</sub> contents: 96%
- ❖ Weave pattern: Leno and Mock-Leno
- ❖ Weight: 150-580g/m<sup>2</sup>
- ❖ Width: 0.93m
- ❖ Length per roll: 50/100/150m
- ❖ Cut pieces up to 900 x 1000mm (35-3/4" x 39-1/4")
- ❖ Mesh size: 1.5 x 1.5mm, 2.0 x 2.0mm, 2.5 x 2.5mm
- ❖ Thickness: 0.35 to 1.10mm
- ❖ Working temperature: 1400 - 1450°C (2552-2642 °F) for thin type, and up to 1620°C (2948 °F) for thick type.
- ❖ Soft Point: 1700°C (3092°F)
- ❖ Working time
  - 1400 - 1450°C : <10 minutes
  - 1450 - 1560°C: < 4 minutes
  - 1560 - 1620 °C: <15 seconds
- ❖ Tensile Strength (N/4ends): ≥ 11 (thin type), ≥ 11 (thick type)

Product Codes →	HSFG-15	HSFG-20	HSFG-25	HSFG-15S	HSFG-20S	HSFG-25S
<b>Warp x Weft</b>	10x10	8x8	7x7	8x7	7x6	6x5
<b>Mesh size (mm)</b>	1.5 x 1.5	2.0x2.0	2.5x2.5	1.5x15	2.0x2.0	2.5x2.5
<b>Thickness (mm)</b>	0.5			1.5		
<b>Weave Type</b>	Leno (thin type)			Mock-leno (thick type)		
<b>Weight (g/m<sup>2</sup>)</b>	160	190	180	580	550	520
<b>Colour</b>	Brown / Black					
<b>Max Temperature</b>	1450°C (2642°F)			1620°C (2948°F)		



## Features

- ❖ Low cost and easy to use
- ❖ Improves fluidity and metal distribution
- ❖ Removes micron sized inclusions and impurities
- ❖ Can be used with existing pattern equipment
- ❖ Reduces turbulence
- ❖ Minimize gating system to reduce cost

## Application

- ❖ Cut pieces for in mold filtration like sand casting, gravity casting, etc.
- ❖ Cut pieces for riser sleeves, bottom or across ports in walls
- ❖ Cut pieces to provide a weakened plane for riser knock-off
- ❖ Cup shapes for investment casting or using with pouring cup

## Filtration ability (Based on experience only)

- ❖ Thin type for gray iron: 5kg/cm<sup>2</sup>
  - ❖ Thin type for ductile iron: 2.5kg/cm<sup>2</sup>
  - ❖ Thick type for gray iron: 10kg/cm<sup>2</sup>
  - ❖ Thick type for ductile iron: 5kg/cm<sup>2</sup>
  - ❖ Above mentioned area means the effective area that the poured molten metal passed, not including extra part for fixing or holding the mesh filter.
- **Cut pieces can be rectangular or round, size from 20x20mm to 900x1000mm.**
- **Pre formed cup filter outside diameter can be 100/110/115/120mm or as per request**



## Silica Casting Mesh Filter Cup

### Silica mesh in cup style shapes, specially designed for casting filtration

In metal filtration, filter cups provide several unique advantages that ceramic foam and cellular filters do not, as follows:



- ✓ Best Results with Hot Topping – a filter cup can easily be removed after the pour so that there is no metal flow restriction during the exothermic action of the hot topping
- ✓ No custom pour cone required – foundries using ceramic foam or cellular filters typically have to use custom-made pour cones that have a small ledge added to the inner wall of the bottom for the filter to sit on

- ✓ Silica mesh filter cups can sit on the top of any standard pour cone
- ✓ No pre-heat required – unlike ceramic foam or cellular filters, silica mesh filter cups can be placed in the pouring cone just prior to the pour

#### Diameters available

- 100mm (4")
- 110mm (4-5/16")
- 120mm (4-3/4")
- Other sizes available on request (after making tooling)

- **Filters are made on a special automatic machine – very cost effective**

