

Pyrotek Rigid Glasweve™ Filters

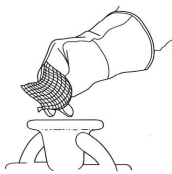
Effectively Remove Inclusions And Slag



Filtering with Pyrotek Rigid Glasweve™ filters is an effective way to remove inclusions and slag from steel, copper-based metal alloys, aluminum, gray, malleable, white, compacted graphite and ductile cast iron.

Able to withstand pouring temperatures up to 3000°F (1650°C), filtration shapes made from Pyrotek Rigid Glasweve™ filters help trap inclusions and reduce turbulence during the casting process. They also promote better metal distribution and minimize reoxidation while increasing the effective surface area for metal filtration.

On contact with molten metal, the surface fibers of Pyrotek Rigid Glasweve™ filters form a sticky layer of fayalite. This allows the fabric to remove even micron-sized inclusions from the beginning of the pour to the end.



Pyrotek Rigid Glasweve™ filters are particularly effective at extracting dross, slag, refractory particles and nonmetallic inclusions.

The most common application of Pyrotek Rigid Glasweve™ filters in the investment casting industry is the preformed cup. The pre-formed Pyrotek Rigid Glasweve™ filters fit into the pouring cups positioned at the top of the tree mold.

Investment casters have also placed Pyrotek Rigid Glasweve™ filters in the wax mold gating system to filter metal at pattern entry. This assists in minimizing reoxidation.

Applications

- Filtering ferrous and non-ferrous molten metals.
- Filtering specialty metals including tool and die steel.

Advantages

- Low cost.
- Improves fluidity and metal distribution.
- Removes micron sized inclusions and impurities.
- Can be used with existing pattern equipment.
- Reduces turbulence.
- Eliminates inclusions created by ceramic chips.
- Non-chilling.
- Reduces scrap.

Availability

- Rolls 35" x 50-55 yards.
- Molded cup shapes.
- Riser sleeves with Pyrotek Rigid Glasweve™ filters placed across bottom of the sleeve or across ports in walls.
- Cut pieces for placement in molds to function as filters.
- Cut pieces to provide a weakened plane for riser knockoff.
- Custom sewn shapes.

Pyrotek Rigid Glasweve™ is a trademark of Pyrotek Incorporated.



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PRODUCT DATA SHEET

Investing with Innovation™

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Filtering Tips For Specific Alloys

Brass & Bronze

- Pyrotek Rigid Glasweve™ filters work well with copper alloys; however they are not recommend for use with pure copper.
- Pyrotek Rigid Glasweve™ filters effectively separate the thin slag in leaded bronze. The smaller the hole size, the better the filtration results.

Steel

- Pyrotek Rigid Glasweve™ filters are rated at 3000 °F (1650 °C); however, many stainless steel castings have been poured at 3100 °F (1704 °C). Success with the high-range temperatures is dependent upon the volume of the metal to be cast. The smaller the volume, the greater the chance of success. The majority of steel castings are poured under 2950 °F (1621 °C).
- For stainless steel, the #31 mesh (1 mm) is typically suitable.
- For carbon steel, we recommend trialing with the #31 mesh and increasing the hole size based on the initial trial results.

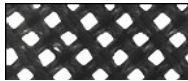


Gray Iron

- The #31 mesh (1 mm) material is recommended as gray iron has thin, hard-to-separate slag.

Ductile Iron

- Due to its reduced flow and typically larger inclusions or particles, a #27 mesh (2 mm) material is recommended for initial trials. If the #27 material is effective, you may wish to reduce the hole size to determine if you receive more effective filtration with a #28 filter.

Technical Data

Weave No.	Weave	Strands/10 cm	Strands/in	% Open	Hole Size	
					mm ²	in ²
31		3.5 x 3.1	9 x 8	14.1	1.30	0.0020
28		2.8 x 2.6	7 x 6.5	16.5	2.25	0.0034
27		2.5 x 2.3	6 x 6	22.4	4.00	0.0061

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