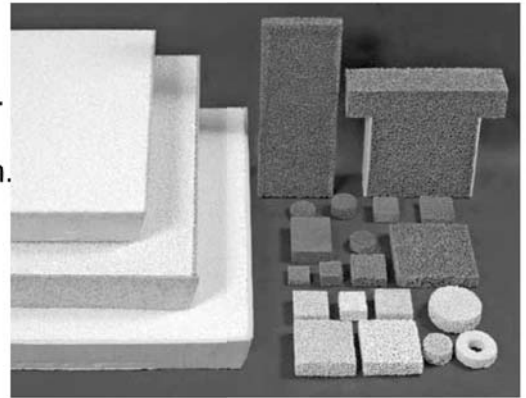


TaoFil® Ceramic Foam Filters

CERAMSOURCE offers a complete line of TaoFil® ceramic foam filters for different kinds of metallurgical applications. The reticular shape of the filter provides a thorough and deep filtration to remove impurities in molten metal stream. TaoFil ceramic foam filters have excellent ability to resist high thermal shock while maintaining efficient filtration. They are widely used in sand, investment, shell and permanent molds for both ferrous and non-ferrous alloy filtration operations. Typical applications of TaoFil foam filters are categorized as follows:



TaoFil FCF-1: for steel cast industry - Temperature: 3000 °F

TaoFil FCF-2: for iron cast industry - Temperature: 2700 °F

TaoFil FCF-3: for non-ferrous alloy and aluminum industry - Temperature: 2000 °F

1. TaoFil FCF-1

TaoFil FCF-1 filter is the most powerful and effective filtration technology to ensure high quality castings for molten metal industry. TaoFil FCF-1 filters are made from zirconia-toughened alumina (Al_2O_3). TaoFil FCF-1 filter is cream in color with no chemical binders. It has strong resistance against thermal shock and has proven effective at pouring temperatures up to 3000 °F. Typical application of TaoFil FCF-1 filter is for in-mold, tundish, pouring cup or baffle-type filtration.

2. TaoFil FCF-2

TaoFil FCF-2 filter is an economical solution to achieve effective molten metal filtration. Silicon carbide (SiC) is used as a distinctive element in the refractory mixture material to make TaoFil FCF-2 filters. Gray in color, TaoFil FCF-2 is a strong and durable foam filter, which can be used very effectively at pouring temperatures up to 2700 °F for gray & ductile iron casting applications.

3. TaoFil FCF-3

TaoFil FCF-3 filter is a common type of filtering tool for aluminum and non-ferrous alloy smelting industries. White in color, TaoFil FCF-3 is made from high purity alumina (Al_2O_3). This kind of filter works at pouring temperatures up to 2000 °F by providing a deep bed filtration to remove large amount of impurities from aluminum melt while the reticular shape of the filter provides a thorough and deep filtration to remove impurities in molten aluminum or non-ferrous alloy stream. It has excellent ability to resist high thermal shock while maintaining efficient removal of impurities with continuous and thorough filtration.

Turn back for more specific product information.

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Tao-Fil® Ceramic Foam Filter Standard Sizes & Options

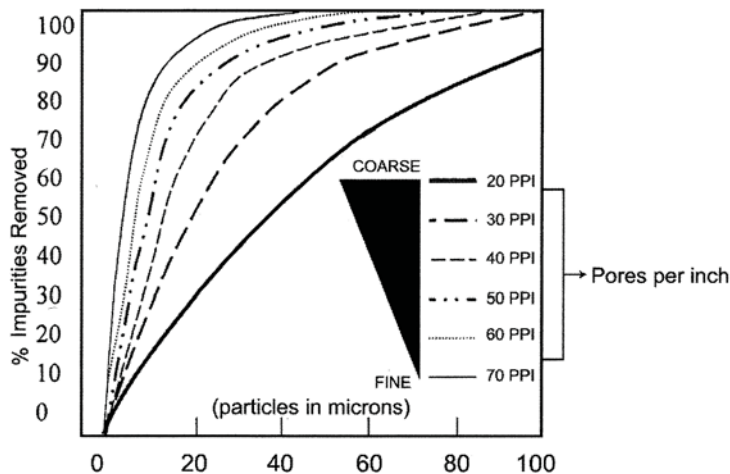
| Filter Grades | Common Shapes | Thickness (inch) | Dimensions (inch) | Porosity (pores per inch) | Edges | Other Options |
|---------------|---------------------------------|---|---|---------------------------|---------------------|---|
| TaoFil FCF-1 | Square Circle Rectangular | 0.5, 0.88, 1, 1.25, 1.5, 1.75 | Length: 1.5 - 8 Width: 1.5 - 8 Diameter: 1 - 7 | 10 ppi to 50 ppi | Straight | Custom shapes, sizes and porosities can be accommodated. |
| TaoFil FCF-2 | Square Circle Rectangular | 0.5, 0.88, 1, 1.25, 1.5, 1.75 | Length: 1.5 - 8 Width: 1.5 - 8 Diameter: 1 - 7 | 10 ppi to 50 ppi | Straight | Custom shapes, sizes and porosities can be accommodated. |
| TaoFil FCF-3 | Square Circle Rectangular | 0.5, 0.88, 1, 1.25, 1.5, 1.75, 2 | Length: 1.5 - 23 Width: 1.5 - 23 Diameter: 1 - 10 | 10 ppi to 50 ppi | Straight & Taper | <u>Gasket</u> 1/8" & 1/4" ceramic paper and carbon expandables. <u>Other</u> Custom shapes, sizes, and porosities can be accommodated. |

Features

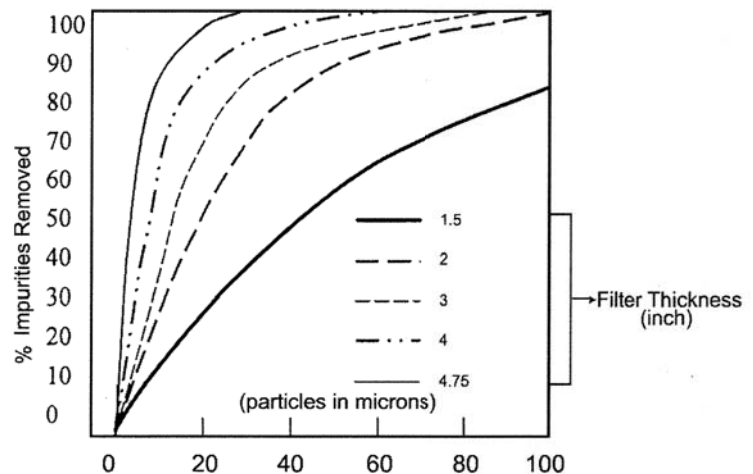
Benefits

| | | |
|-------|---|--|
| FCF-1 | Reticulated screening structure Reduce reoxidation & sub-surface defects High thermal shock resistance Superior Strength Various shapes & sizes | Refined and thorough filtering of molten metal stream. High casting yield. Effective at high temperature up to 3000 °F. Durable in use life. Specific applications can be met. |
| FCF-2 | Fine reticulated screening structure Retain dross & slag Low thermal mass Thermal shock resistant High wear resistant Various shapes & sizes | Deep filtration effect. Increase metal fluidity. Maintain maximum pouring temperature. Perfect for grey & ductile iron castings. Durable in use life. Suit varied filtration process & equipment. |
| FCF-3 | Fine reticulated screening structure Retain dross & slag Low thermal mass Various shapes & sizes Available with edge sealing materials | Deep bed filtration throughout the thickness of filter. Increase metal fluidity. Maintain maximum pouring temperature. Meet different filtration requirements. Easy and secure installation. |

Diagrammatic Description of How TaoFil Filters Eliminate Impurities at Variations of Porosity and Thickness



Impurities removed with 2" thick TaoFil filters at various porosities



Impurities removed with 30 PPI TaoFil filters at various thicknesses

Data are average results of tests conducted under standard procedures and are subject to variation. Results should not be used for specification purposes. The information, recommendations, and opinions set forth are offered solely for consideration, inquiry, and verification, and are not, in part or total, to be construed as constituting a warranty or representation for which we assume legal responsibility. Nothing contained herein is to be interpreted as authorization to practice patented invention without a license.