

# Cerafelt Refractory Insulation

Cerafelt sheets are lightweight, flexible refractory fibre insulators formed from exceptionally pure refractory oxides and bonded with an organic binder.

Cerafelt sheet products are suitable for a wide range of high temperature industrial applications such as expansion joints in kilns, furnaces, and boiler walls, and high-temperature gaskets.

When used as a gasket, Cerafelt exhibits excellent resistance to penetration from molten metals, both ferrous and nonferrous.

These unique properties, coupled with its ease of fabrication, make it ideal for ingot stool seals, stopper rod gaskets, and gaskets for aluminum billet casting.



## Features

- Lightweight & flexible
- Chemically stable
- Resistant to thermal Shock
- High sound absorption properties
- Low thermal conductivity and heat storage

## Applications

- Gaskets
- Expansion joints
- Thermal Barriers
- Molten metal resistant insulation

**Sizes: -** Thickness: 6.4 mm; 9.5mm; 12.5 mm; 19 mm; 25 mm  
Sheet Size: 2,440 mm x 1,220 mm

**Properties: -** Temperature Rating - Continuous : 1260°C  
Temperature Rating - Max. Intermittent : 1320°C  
Density\*\* : 192 kg/m<sup>3</sup> (12lb ft<sup>3</sup>), Ex Stock  
Loss on Ignition, LOI : 3 - 9%  
Color : Yellow - Cream

\*\*Densities: - 64, 96, 128, 160, 224, 288 & 385 kg/m<sup>3</sup> are available on indent

## Chemical Analysis by Weight after Firing

Alumina, Al <sub>2</sub> O <sub>3</sub>	:	46%
Silica, SiO <sub>2</sub>	:	54%
Other	:	trace

## Airflow Resistance based on 192 kg/m<sup>3</sup> Density

8.9 cfm/in. w.c./ft <sup>2</sup> /in @ 24°C
4.4 cfm/in. w.c./ft <sup>2</sup> /in @ 538°C
3.2 cfm/in. w.c./ft <sup>2</sup> /in @ 1093°C

## Thermal Conductivity based on 128 kg/m<sup>3</sup> Density

<u>Mean temperature</u>	<u>BTUin/hrft<sup>2</sup>F (W/mK)</u>
500°F (260°C)	0.46 (0.07)
1000°F (538°C)	0.94 (0.14)
1500°F (816°C)	1.58 (0.23)
2000°F (1093°C)	2.29 (0.33)

## Sound Absorption Coefficients, No. 4 Mounting, based on 128 kg/m<sup>3</sup> Density

	<u>Cycles per Second</u>						
	<u>125</u>	<u>250</u>	<u>500</u>	<u>1000</u>	<u>2000</u>	<u>4000</u>	<u>NRC*</u>
<b>12.5mm</b>	07	12	45	72	77	85	50
<b>25.0mm</b>	21	69	86	84	86	99	80
<b>50.0mm</b>	92	78	81	83	81	79	80
<b>75.0mm</b>	65	80	83	88	85	83	85

\* Noise Reduction Coefficient - The average of the sound absorption coefficients at frequencies of 250, 500, 1000 and 2000 cycles per second.



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