

## Inorganic Wet Felt



### Product Description

Inorganic Wet Felt is a damp, insulating sheet material based on our inorganic vacuum formed product formulations. Our engineered blend of long and short fiber ensures the optimum strength and flexibility of product during installation. Often used as a form-fitting material, Inorganic Wet Felt is ideal for installations that have uncertain dimensions or complex surface geometry. Inorganic Wet Felt is water-based and can simply be hand-moulded into place and air dried. Thinner sheets are supplied in rolls, whereas thicker sheets are supplied flat. Stringent process controls ensure that Inorganic Wet Felt is provided at the optimum moisture content and strength.

### Features

- Non-self sticking and can be joined by air-set mortar
- Drying time is 24 to 48 hours
- Maintains wet shape and characteristics of prefired material after drying
- Random fiber orientation and a tightly knit structure
- Colloidal silica is disbursed uniformly throughout the entire piece and does not drain out
- Does not require costly dryers or tooling to conform to size requirements

### Applications

- Wrapping exhaust manifolds in marine engines
- Wrapping fuel injector nozzles in solid fuel fired kilns
- Lining combustion duct work in incinerators and boilers
- Lining hot tuyers in upcomers of blast furnaces
- Hand packed to protect the anchor of an element hanger module

**Inorganic Wet Felt**

Physical Properties	2300-W	2600-W
Colour	white	White
Density, pcf (kg/m <sup>3</sup> )	17 (272)	17 (272)
Continuous use limit, °F (°C)	2300 (1260)	2600 (1426)
Melting point, °F (°C)	3200 (1760)	3200 (1760)
MOR, psi (Mpa)	56 (0.39)	72 (0.50)
Compressive strength, psi (Mpa):		
@ 5% compression	7 (0.05)	19 (0.13)
@ 10% compression	9 (0.06)	25 (0.17)
Permanent linear change, %:		
@ 1500°F (816°C)	0.3	-
@ 1800°F (982°C)	1.9	0.3
@ 2000°F (1093°C)	2.7	0.8
@ 2200°F (1204°C)	3.4	1.2
@ 2400°F (1316°C)	-	1.6
@ 2600°F (1426°C)	-	1.6
Maximum recommended gas velocity, ft/sec (m/sec)	200 (61)	200 (61)
Specific heat, BTU/lb•°F (J/kg•K)	0.27 (1130)	0.27 (1130)
<b>Chemical Analysis (%):</b>		
Alumina, Al <sub>2</sub> O <sub>3</sub>	32	35
Silica, SiO <sub>2</sub>	68	65
Organic material	-	-
<b>Thermal Conductivity, BTU•in/hr•ft<sup>2</sup>•°F (w/m•K)</b>		
Mean temperature:		
@ 500°F (260°C)	0.48 (0.07)	0.45 (0.06)
@ 1000°F (538°C)	0.72 (0.10)	0.67 (0.10)
@ 1500°F (816°C)	1.03 (0.15)	1.01 (0.14)
@ 2000°F (1093°C)	1.52 (0.22)	1.49 (0.21)

**Standard Sizes**

Standard size, in (mm):

24 x 36 (610 x 915)

Standard thickness, in (mm):

1/8, 1/4, 1/2, 1 (3.2, 6.4, 12.7, 25.4)

\* Custom sizes available upon request.

The values given herein are typical values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice. Therefore, the data contained herein should not be used for specification purposes. Check with your Thermal Ceramics office to obtain current information.

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