



FIRWIN SW1800 INSULATION

Firwin SW1800 is a unique insulating blanket material with excellent performance in high-temperature applications with stability and resistance to chemical attack. SW1800 is unaffected by incidental spills of oil or water. Thermal and physical properties are restored after drying. This product has been specially developed to meet the demanding health and Safety requirements of the European Union.

Features

- Resistant to thermal shock
- Provide low thermal conductivity and low heat storage
- Enhanced solubility in body fluids
- Heat cleaned during production to remove any organic matter to minimize out-gassing On initial startup.

Applications

Blanket

- • Removable insulation blankets
- Furnace kiln, reformer and boiler lining
- • Laboratory ovens
- • Furnace door lining and seals
- • Furnace repair
- • Annealing furnace linings
- • Investment casting mold wrap
- • Stress - relieving blankets
- • Reusable steam and gas turbine insulation
- • Expansion joints packing
- • High temperature gasketing
- • Fire protection
- • Acoustical service
- • Cryogenic insulation

Health and Safety

FW1800 is exonerated from any carcinogenic classification in the countries of the European Union under provisions of Directive 97/69/EC. They are therefore exempt from the requirement for labeling for carcinogenicity. Tests were carried out at the Fraunhofer Institute for Inhalation Toxicology in Hannover, Germany.

FW1800 blanket is classified per UL 723 (ASTM E-84) Flame Spread Rating = 0, Smoke Developed Rating = 0. It is also classified by Underwriters Laboratories under "Batts and Blankets (BKNV)" in the UL Building Materials Directory, No. R8418. FW1800 is US Coast Guard approved for Steel and Aluminum vessels now defined under IMO Res.A.754(18)., complies with SOLAS safety objectives, and Fire Resisting Division for High Speed Craft (HSC).



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Product Information
10.01/11 14-100

Physical Properties

Color	white
Melting point, °F (°C)	2680°F (1470°C)
Maximum temperature rating	2012°F (1100°C)
Continuous use limit, °F (°C)	1832°F (1000°C)
Density, pcf (kg/m³)	4*, 6, 8 (64,96,128)
Thickness, in (mm) –	1/2 - 2 (6.25 - 50)
Width, in (mm) – –	24, 48 (600, 1200)
Typical linear shrinkage, nominal % 24 hrs	
@ 1000°F (538°C)	– 2 –
@ 1800°F (982°C)	– 3 –
@ 2282°F (1250°C)	– <2

Chemical Analysis

Silica, SiO ₂	60 - 70
Calcium Oxide, CaO	25 - 35
Magnesium Oxide, MgO	4 - 7
Zirconia, ZrO ₂	–
Alumina, Al ₂ O ₃	trace

* 4pcf only available in 1/2 up to 2" ** 2" thick, 48"wide only

Thermal Conductivity, Btu•in/hr•ft²•°F (w/m•k) (ASTM 201)

Blanket 607 (8 pcf)

Mean temperature	Btu•in/hr•ft ² •°F	w/m•k
@ 500°F (260°C)	0.46	0.06
@ 1000°F (538°C)	0.97	0.14
@ 1500°F (816°C)	1.65	0.24
@ 1800°F (982°C)	2.09	0.30

Data are average results of tests conducted under standard procedures and are subject to variation.
Data contained in this brochure are intended as a guide only.