

FIBERFRAX® 1400 DURABLANKET

Fiberfrax Durablanket 1400 is made from high purity alumina, silica and zirconia chemistry, which imparts extremely low shrinkage characteristics up to a continuous use temperature of 1400°C.

Fiberfrax Durablanket 1400 is a highly efficient insulator having low heat storage capacity and complete resistance to damage from thermal shock. The refractoriness and thermal stability of Fiberfrax Durablanket 1400 allows a greater margin of safety in design where adverse environmental conditions are encountered. Fiberfrax Durablanket 1400 can be used in a wide range of applications as thermal insulation, particularly as hot face lining in kilns.

General Characteristics

Fiberfrax Durablanket 1400 offers users a number of important advantages over other man-made mineral fibers:

- Excellent thermal and physical stability up to 1430°C
- Extremely low shrinkage
- Thermal shock resistance
- Light weight
- Resiliency
- Excellent cold handling strength
- Excellent corrosion resistance

Chemical Analysis (wt.%)

Al ₂ O ₃	30.5
SiO ₂	54.0
ZrO ₂	15.5

Thermal Conductivity Data (W/mK)

Mean Temp	100 kg/m ³	130kg/m ³
400°C	0.08	0.07
600°C	0.15	0.13
800°C	0.23	0.18
1000°C	0.34	0.25

Physical Properties

Colour	White
Classification Temperature	1430°C
Melting Point	1740°C
Fibre Diameter	2-3 microns
Specific heat at 1100C	1130J/kg°C
Specific gravity	2.73



Chemical Resistance

Fiberfrax Durablanket 1400 exhibit excellent resistance to attack from most corrosive agents with the exceptions of hydrofluoric acid phosphoric acid and strong alkalis. The fibers also effectively resist oxidation and reduction. If wet by water or steam, thermal and physical properties are restored upon drying.

Fire Test Data

Fiberfrax Durablanket is non-combustible in accordance with Australia Standard AS:1530 Part 1 – 1994 and is approved for use against cellulosic and hydrocarbon fires and for dry wrapping of structural steel.

Typical Application

- Furnace, Kiln and Boiler Hot Face insulation
- Furnace door lining and fire seals
- Insulating blanket for field stress relieving welds
- Flexible high temperature pipe insulation
- Refractory Kilns

Permanent Linear Shrinkage, 24 hour soak

1000°C	1.4%
1100°C	2.2%
1250°C	3.3%
1400°C	5.6%