

FIBERFRAX® DURABLANKET HOT FACE

Fiberfrax Durablanket Hot Face is made from high purity ceramic fibers with improved high temperature characteristics.

The improved high temperature properties of Fiberfrax Durablanket Hot Face are the result of its high chemical purity and increased alumina content, up to 5% higher than regular Durablanket. Minimising shrinkage and improving thermal stability permits Fiberfrax Durablanket Hot Face to be used to 1400°C.

The refractoriness of high alumina fibers allows a greater margin of safety in design where adverse environmental conditions are encountered.

Fiberfrax Durablanket Hot Face can be used in a wide range of applications as thermal insulation, particular as hot face lining in kilns.

General Characteristics

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

- Excellent thermal and physical stability up to 1400°C
- Thermal shock resistance
- Light weight
- Resiliency
- Excellent cold handling strength
- Excellent corrosion resistance
- Excellent sound absorption

Chemical Analysis (wt.%)

Al ₂ O ₃	52.0 – 53.0
SiO ₂	46.0 – 47.0
Fe ₂ O ₃	0.06
TiO ₂	0.04
Na ₂ O ₃	0.03
CaO	0.04
Trace Inorganics	0.10

Thermal Conductivity Data (W/mK)

Mean Temp	160 kg/m ³
400°C	0.06
600°C	0.09
800°C	0.13
1000°C	0.18



Chemical Resistance

Durablanket Hot Face exhibits excellent resistance to attack from most corrosive agents with the exception 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

Physical Properties

Colour	White
Classification Temperature	1400°C
Melting Point	1800°C
Fiber Diameter	3 microns
Specific heat at 1100°C	1130J/kg°C
Specific gravity	2.73

Permanent Linear Shrinkage, 24 hour soak

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