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#### DESCRIPTION

Excelfrax 550 Felt is manufactured from specially blended glass fibres and contains no organic binder. The resultant sheets are self supporting, flexible, lightweight with exceptional thermal performance characteristics and produce no emissions on firing. Excelfrax 550 Felt exhibits thermal performance approaching that of Microporous products and can therefore be used whenever space is limited or premium thermal performance is required. The sheets are available in a wide range of standard sizes, are easily cut and can be formed into geometrically demanding shapes or around complex contours.

## **GENERAL CHARACTERISTICS**

Excelfrax 550 Felt has the following outstanding characteristics:

- Exceptionally low thermal conductivity
- Organic binder free
- Resistance to thermal shock
- Good handling strength
- Extensive thickness range
- Easy to cut with standard tools

### TYPICAL APPLICATIONS

- High performance back-up insulation
- Domestic appliance (ovens, heaters, boilers etc.)
- Automotive heat shields
- Fuel cells
- Cryogenic applications

Any new and/or special use of these products, whether or not in an application listed in our literature, must be submitted to our technical department for their prior written approval.



#### TYPICAL PRODUCT PARAMETERS

	Excelfrax 550 Felt
Typical Chemical Analysis (fibre wt. %)	
SiO <sub>2</sub>	65.3
$AI_2O_3$	2.5
CaO	6.0
MgO	2.7
Na <sub>2</sub> O	14.8
$B_2O_3$	6.0
K₂O	1.0
Physical Properties	
Colour	White
Maximum Use Limit (°C)* *	500
Continuous Use Limit (°C)* *	450
Product Density (kg/m³)	130
Thermal Conductivity (W/mK)	
Mean Temp.	
100 °C	0.029
200 °C	0.032
300 °C	0.036
400 °C	0.042
Permanent Linear Shrinkage (%) 24 Hour Soak	
450 °C	<1.0

<sup>\*</sup>The maximum continuous use limit depends upon application conditions. For certain applications continuous use temperature limits may be significantly reduced. For assistance or clarification please contact your nearest Unifrax Engineering office. Where appropriate Physical Properties data measured according to EN 1094-1.

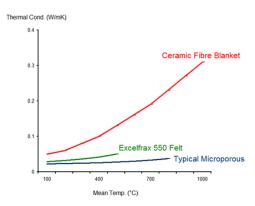
#### **AVAILABILITY**

Thickness (mm)	Excelfra	Excelfrax 550 Felt	
Sheet Sizes (mn	n) 1000 x 610	1250 x 1000	
3	✓	✓	
6	✓	✓	
9	<b>√</b>	✓	
12	✓	✓	
18	✓	✓	
25	<b>√</b>	✓	

Other thicknesses / sizes may be available on request subject to minimum order requirements.

#### **GRAPH**

# Thermal conductivity comparison



#### HANDLING INFORMATION

A Material Safety Data Sheet has been issued describing the health, safety and environmental properties of this product, identifying the potential hazards and giving advice on handling precautions and emergency procedures. This must be consulted and fully understood before handling, storage or use.

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