

# Product Information Sheet

## Excelfrax<sup>®</sup> 550 Felt

**Excelfrax<sup>®</sup>**  
**550 Felt**

### DESCRIPTION

Excelfrax 550 Felt is manufactured from specially blended glass fibres and contains no organic binder. The resultant sheets are self-supporting, flexible, and 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 – no smoke or fumes
- Resistance to thermal shock
- Good handling strength
- Extensive thickness range
- Easy to cut, handle and install

### TYPICAL APPLICATIONS

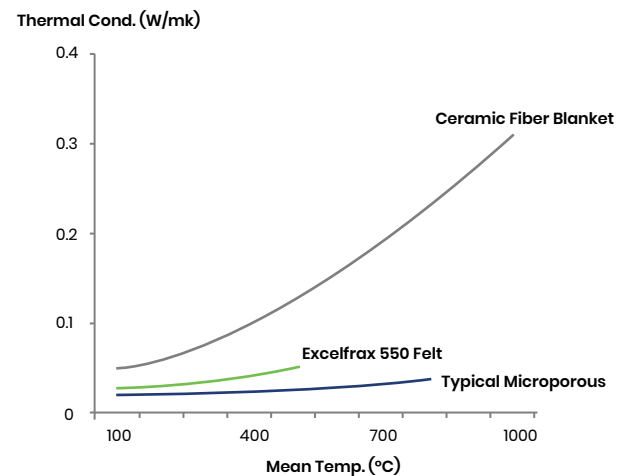
- **APPLIANCES**
  - Compact, high speed ovens
  - Bakery/bread ovens
  - Domestic appliance (ovens, heaters, boilers etc.)
- **AUTOMOTIVE**
  - Heat shields
- **GENERAL USE AND OTHER INDUSTRIES**
  - High-performance backup insulation

Information on other applications is available upon request. Any new and/or special use of these products, whether in an application listed in our literature, is advised to be submitted to our Alkegen Application Engineering department for review and guidance on material selection.



### GRAPH

Thermal conductivity comparison



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## TYPICAL PRODUCT PARAMETERS

| Excelfrax 550 Felt                      |      |
|---|------|
| Typical Chemical Analysis (fibre wt. %) |      |
| SiO <sub>2</sub>                        | 65.3 |
| Al <sub>2</sub> O <sub>3</sub>          | 2.5  |
| CaO                                     | 6.0  |
| MgO                                     | 2.7  |
| Na <sub>2</sub> O                       | 14.8 |
| B <sub>2</sub> O <sub>3</sub>           | 6.0  |
| K <sub>2</sub> O                        | 1.0  |

| Physical Properties                          |       |
|--|-------|
| Colour                                       | White |
| Continuous Use Temperature (°C) *            | 500   |
| Short-Term, Intermittent Temperature (°C) ** | 550   |
| Product Density (kg/m <sup>3</sup> )         | 130   |

| Permanent Linear Shrinkage (%) 24 Hour Soak |      |
|---|------|
| 450 °C                                      | <1.0 |

\*The Continuous Use Temperature is a recommended maximum operating temperature for the material usage under clean, oxidizing atmosphere conditions. For certain application conditions (specific chemical contaminants, reducing atmospheres, etc.), the Continuous Use Temperature may be reduced.  
\*\*Excelfrax 550 Felt can be used up to 550°C temperatures on a limited, short-term/intermittent basis in specific applications. Please check with the Alkegen engineering team prior to using product at temperatures above the recommended maximum continuous use temperature.

The following are registered trademarks of Alkegen: Excelfrax.  
The test data shown are average results of tests conducted under standard procedures and are subject to variation. Results should not be used for specification purposes. Product Information Sheets are periodically updated by Alkegen. Before relying on any data or other information in this Product Information Sheet, you should confirm that it is still current and has not been superseded. A Product Information Sheet that has been superseded may contain incorrect, obsolete and/or irrelevant data and other information.

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## AVAILABILITY

| Thickness (mm) | Excelfrax 550 Felt |            |             |
|----------------|--------------------|------------|-------------|
|                | Sheet Sizes (mm)   | 1000 x 610 | 1250 x 1000 |
| 3              |                    | ✓          | ✓           |
| 6              |                    | ✓          | ✓           |
| 9              |                    | ✓          | ✓           |
| 12             |                    | ✓          | ✓           |
| 18             |                    | ✓          | ✓           |
| 25             |                    | ✓          | ✓           |

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

| Thermal Conductivity (W/mK) |       |
|-----------------------------|-------|
| Mean Temp.                  |       |
| 100 °C                      | 0.029 |
| 200 °C                      | 0.032 |
| 300 °C                      | 0.036 |
| 400 °C                      | 0.042 |

## 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.

Excelfrax 550 is a low-biopersistent fibre product not classified as carcinogenic by IARC, NTP or under any national regulations on a global basis. Following the guidelines of the GHS (Globally Harmonized System for the classification and labelling of chemicals), and various international GHS implementations (e.g., EU CLP, OSHA HCS, Canada WHMIS) this product is not classified. Furthermore, it is based on fibres meeting the requirements specified under Note Q of European Regulation EC/1272/2008 (on Classification, Labelling and Packaging of substances and mixtures) which are therefore exonerated from classification and labelling as hazardous.

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