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# **DESCRIPTION**

Fiberfrax Papers are manufactured from Fiberfrax refractory ceramic fibres, blended with specially selected organic binders to give flexible papers with exceptional characteristics. Advanced production techniques ensure a highly uniform structure enhanced by low thermal conductivity, good handling strength and a smooth surface. Fiberfrax Papers are available in a range of thicknesses and roll sizes.

### **GENERAL CHARACTERISTICS**

Fiberfrax Papers have the following outstanding characteristics:

- High temperature stability
- High resiliency
- Lightweight
- Excellent flexibility
- Easy to wrap, cut and shape

### TYPICAL APPLICATIONS

- High temperature gaskets and seals
- Ingot mould liners
- Automotive heat shields and silencer insulation
- Molten metal transfer systems (back-up insulation)
- Expansion joints

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.



### FIBERFRAX PAPERS

Fiberfrax FT Paper is a versatile insulating paper available in a wide range of thicknesses, and is suitable for use in a variety of high temperature applications.

Premium grade Fiberfrax DS Paper is produced using a unique washing process to give a paper designed for applications where extra cleanliness (less particulate) is required.

Fiberfrax H Paper is manufactured using high alumina ceramic fibre, giving a paper which can be operated at higher temperatures and with an improved chemical resistance.

# TYPICAL PRODUCT PARAMETERS

Typical Chemical Analysis (fibre wt	Paper	FT	DS	Н			
Al2O3       46.0 - 50.0       46.0 - 50.0       48.0 - 58.0         Fe2O3 + TiO2       <0.2	Typical Chemical Analysis (fibre wt. %)						
Fe <sub>2</sub> O <sub>3</sub> + TiO <sub>2</sub> <0.2	SiO <sub>2</sub>	50.0 - 54.0	50.0 - 54.0	42.0 - 52.0			
Alkalis         <0.25         <0.25         <0.25           Physical Properties         White         White         White           Colour         White         White         White           Melting Point (°C)         1800         1800         1800           Product Density (kg/m³)         200 - 240         160 - 200         180 - 280           Tensile Strength (kPa)         >350         >350         >350           Paper Type         Unwashed         Washed         Washed           Classification Temperature (°C)*         1250         1250         1400           Loss on Ignition (wt.%)         <12.0	$AI_2O_3$	46.0 - 50.0	46.0 - 50.0	48.0 - 58.0			
Physical Properties           Colour         White         White         White           Melting Point (°C)         1800         1800         1800           Product Density (kg/m³)         200 - 240         160 - 200         180 - 280           Tensile Strength (kPa)         >350         >350         >350           Paper Type         Unwashed         Washed         Washed           Classification Temperature (°C)*         1250         1250         1400           Loss on Ignition (wt.%)         <12.0	$Fe_2O_3 + TiO_2$	<0.2	<0.2	<0.2			
Colour         White         White         White           Melting Point (°C)         1800         1800         1800           Product Density (kg/m³)         200 - 240         160 - 200         180 - 280           Tensile Strength (kPa)         >350         >350         >350           Paper Type         Unwashed         Washed         Washed           Classification Temperature (°C)*         1250         1250         1400           Loss on Ignition (wt.%)         <12.0	Alkalis	<0.25	<0.25	<0.25			
Melting Point (°C)       1800       1800       1800         Product Density (kg/m³)       200 - 240       160 - 200       180 - 280         Tensile Strength (kPa)       >350       >350       >350         Paper Type       Unwashed       Washed       Washed         Classification Temperature (°C)*       1250       1250       1400         Loss on Ignition (wt.%)       <12.0	Physical Properties						
Product Density (kg/m³)         200 - 240         160 - 200         180 - 280           Tensile Strength (kPa)         >350         >350         >350           Paper Type         Unwashed         Washed         Washed           Classification Temperature (°C) *         1250         1250         1400           Loss on Ignition (wt.%)         <12.0	Colour	White	White	White			
Tensile Strength (kPa)       >350       >350       >350         Paper Type       Unwashed       Washed       Washed         Classification Temperature (°C) *       1250       1250       1400         Loss on Ignition (wt.%)       <12.0	Melting Point (°C)	1800	1800	1800			
Paper Type         Unwashed         Washed         Washed           Classification Temperature (°C) *         1250         1250         1400           Loss on Ignition (wt.%)         <12.0	Product Density (kg/m³)	200 - 240	160 - 200	180 - 280			
Classification Temperature (°C) *       1250       1250       1400         Loss on Ignition (wt.%)       <12.0	Tensile Strength (kPa)	>350	>350	>350			
Loss on Ignition (wt.%)       <12.0       <12.0       <12.0         Thermal Conductivity (W/mK)         Mean Temp.       0.08       0.08       0.11         800 °C       0.11       0.11       0.16         1000 °C       0.17       0.17       0.21	Paper Type	Unwashed	Washed	Washed			
Thermal Conductivity (W/mK)         Mean Temp.       0.08       0.08       0.11         800 °C       0.11       0.11       0.16         1000 °C       0.17       0.17       0.21	Classification Temperature (°C) *	1250	1250	1400			
Mean Temp.         600 °C       0.08       0.08       0.11         800 °C       0.11       0.11       0.16         1000 °C       0.17       0.17       0.21	Loss on Ignition (wt.%)	<12.0	<12.0	<12.0			
600 °C       0.08       0.08       0.11         800 °C       0.11       0.11       0.16         1000 °C       0.17       0.17       0.21	Thermal Conductivity (W/mK)						
800 °C 0.11 0.11 0.16 1000 °C 0.17 0.17 0.21	Mean Temp.						
1000 °C 0.17 0.17 0.21	600 °C	0.08	0.08	0.11			
	800 °C	0.11	0.11	0.16			
Permanent Linear Shrinkage (%) 24 Hour Soak	1000 °C	0.17	0.17	0.21			
	Permanent Linear Shrinkage (%) 24 Hour Soak						
1250 °C <4.0 <4.0 -	1250 °C	<4.0	<4.0	-			
1400 °C <4.0	1400 °C	-	-	<4.0			

<sup>\*</sup>Classification Temperature is not a definition of the operational limit of these products, especially when long term physical or dimensional stability is a factor. For certain applications operational 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)	FT	DS	Н	Roll Length (m)			
		Roll Wid	tth (mm)	610	1000	1260	
1	✓	✓	<b>√</b>	125	330	330	
2	✓	✓	<b>✓</b>	60	180	180	
3	✓	✓	<b>√</b>	35	110	110	
4	✓	✓		25	80	80	
5	✓	✓		20	60	60	
6	✓	✓		15	60	60	
7	✓			15	50	50	
8	<b>√</b>			10	40	40	

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

# 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.

Supplied by:			

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