

# **DALFRATEX**®

## High temperature fibres and textiles

DALFRATEX<sup>®</sup> is a range of inorganic fibres and textiles. The materials are capable of operating continuously at 1000 °C and at up to 1600 °C for limited periods. They will not melt or vapourise until temperature exceeds 1700 °C, and have a high resistance to thermal shock.

DALFRATEX<sup>®</sup> products also provide flexible electrical insulation at temperatures as high as 1000 °C.

They are composed of continuous filaments of amorphous silica, which combine the flexibility of fibres and textiles, with the refractory properties of silica.

The majority of DALFRATEX® products are available in two basic forms, i.e. standard and pre-shrunk.

Technical data		
Classification temperature	°C	1000 °C
Shrinkage		
200 °C - 24h	%	4
800 °C - 24h	%	7
1000 °C – 24h	%	12
1000 °C - 24h (pre-shrunk)	%	< 2
Specific heat capacity	kJ/kg K	0.88
Chemical analysis		
SiO <sub>2</sub>	%	98.57
Al <sub>2</sub> O <sub>3</sub>	%	0.47
TiO <sub>2</sub>	%	0.30
Alkalies	%	0.13
Fe <sub>2</sub> O <sub>3</sub>	%	0.08
MgO	%	0.07
B <sub>2</sub> O <sub>3</sub>	%	0.06
CaO	%	0.05
Chlorides	ppm	100-150

## **Properties & advantages**

- good electrical insulator
- high electric strength
- low electrical conductivity
- compatible with mineral acids (except phosphoric and hydrofluoric)
- compatible with a wide range of substances (air, chloride, carbon monoxide, ammonia and sulphur dioxide)
- compatible with silica refractories at high temperatures

## **Application areas**

#### AEROSPACE

• gas turbine and rocket engines

#### HEAVY INDUSTRY

- metallurgical/Steel production
- glass manufacture
- fire protection
- electrical heating

### OIL AND GAS

- pipeline and vessel fabrication
- gas production

#### ENERGY

- nuclear power
- electrical generation

# **DALFRATEX**®

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Delivery sizes DALFRATEX® cloth											
Code		C-H	UC-19/D	UC-19/AR							
Basic form		pre-shrunk	pre-shrunk	unfired	unfired	unfired					
Yarn type			plain								
Type of weave			satin								
Thickness	mm	0.9	1.6	0.9	1.6	1.7					
Width	mm	825	825	910	910	910					
Weight	g/m²	630	1250	640	1260	1300					
Length	m	45	45	48	48	48					

Delivery sizes DALFRATEX® cord										
Code		D-T1	D-T20	D-T2	D-T3	D-T4				
Diameter	mm	0.7	0.9	1.2	2	3				
Weight	g/m²	430	740	1200	4000	6200				
Package		2320 m/kg	1360 m/kg	840 m/kg	100 m	50 m				
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All cord can be supplied in pre-shrunk or in natural condition and are coated.

Delivery sizes DALFRATEX <sup>®</sup> rope										
Code		R-B3	R-B4	R-C10	R-C13	R-C25	R-C40			
Diameter	mm	9	12	10	13	20-25	40			
Weight	g/m²	70	110	40	60	60	260			
Length	m	50	25	25	25	25	25			

The "B" series ropes are supplied in pre-shrunk condition and have light coating applied to assist manufacture. The "C" series ropes are supplied pre-shrunk and without coating

Delivery sizes DALFRATEX <sup>®</sup> tape										
Code		T-3	T-5	T-85	T-H725	T-H/50				
Thickness	mm	0.4	0.4	4.0	1.0	1.0				
Width	mm	20	30	22	25	50				
Weight	g/m	6	9	37	16	32				
Length	m	30	30	-	-	-				

Delivery sizes DALFRATEX® sleeving											
Code		S-R4	-R6	S-R25	S-R32	S-F16	S-F20	S-F25	S-F30	S-8	S-46
Bore	mm	3.2	4.8	20	25	10	13	20	25	30	75- 85
Wall thickess	mm	0.5	0.5	1.0	1.0	0.4	0.5	0.5	0.5	1.0	7 at 75
Length	m	100	60	15	100	300	300	300	300	50	-
All sleevings can be supplied in pre-shrunk or in natural condition; with or without a coating											

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