

DALFRATEX®

High temperature fibres and textiles

DALFRATEX® 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® 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 ₂ | % | 98.57 |
| Al ₂ O ₃ | % | 0.47 |
| TiO ₂ | % | 0.30 |
| Alkalies | % | 0.13 |
| Fe ₂ O ₃ | % | 0.08 |
| MgO | % | 0.07 |
| B ₂ O ₃ | % | 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®



| Delivery sizes DALFRATEX® cloth | | | | | | |
|---------------------------------|------------------|------------|------------|---------|---------|----------|
| Code | | C-H | C-19 | UC-H/D | 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/m ² | 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/m ² | 430 | 740 | 1200 | 4000 | 6200 |
| Package | | 2320 m/kg | 1360 m/kg | 840 m/kg | 100 m | 50 m |

All cord can be supplied in pre-shrunk or in natural condition and are coated.

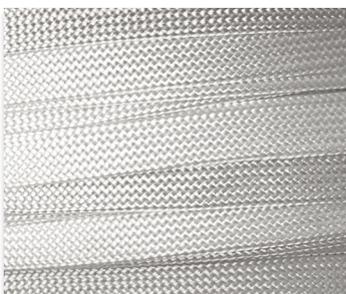


| Delivery sizes DALFRATEX® rope | | | | | | | |
|--------------------------------|------------------|------|------|-------|-------|-------|-------|
| Code | | R-B3 | R-B4 | R-C10 | R-C13 | R-C25 | R-C40 |
| Diameter | mm | 9 | 12 | 10 | 13 | 20-25 | 40 |
| Weight | g/m ² | 70 | 110 | 40 | 60 | 60 | 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® 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 | SR25 | SR32 | SF16 | SF20 | SF25 | SF30 | S-8 | S-46 |
| Bore | mm | 3.2 | 4.8 | 20 | 25 | 10 | 13 | 20 | 25 | 30 | 75-85 |
| Wall thickness | 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 sleeveings can be supplied in pre-shrunk or in natural condition; with or without a coating