

REFRASIL[®] cordages and yarns

REFRASIL cordage and yarn insulate against high temperatures.

REFRASIL textiles are continuous filament, amorphous silica products, with the thermal performance of refractory materials. The fiber is highly porous and does not melt or vaporize until temperatures exceed 1593 °C [2900 °F]. REFRASIL cordage and yarn textiles will operate continuously at temperatures up to 982 °C [1800 °F] with little or no change in properties because they have been fired at 982 °C [1800 °F].

These products have excellent resistance to thermal shock, as well as minimal shrinkage at service temperatures. They provide reliable insulation and protection while retaining their original textile characteristics.

REFRASIL is relatively inert and resists most chemical attack. It provides outstanding protection in electrical insulation applications with good dielectric strength.

C-series cordage and yarn are PTFE lubricated to facilitate handling and improve their abrasion resistance.

Availability

REFRASIL's textiles are available in a variety of product forms to suit each customer's specific needs – cloth, tape, sleeving, rope, yarn, batt, and bulk fiber.

All textiles can be purchased through a nationwide network of stocking distributors.



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Special benefits

REFRASIL cordage used in "mop-type" curtains at entrances and exits of continuous belt treating furnaces will protect parts and products against contamination and marking damage during high heat processing. REFRASIL resists oxidation, most corrosive solutions and chemicals. REFRASIL textile products have a high capacity to absorb moisture but do not degrade in the presence of water.

With REFRASIL textiles on the job, maintenance time and labor costs can be reduced, energy cost cut, and parts, materials, men and machinery protected from potential damage and destruction caused by molten metal splash, sparks, and radiant heat.

REFRASIL includes a complete range of textile forms for protection against all these adverse conditions. And they're all non-asbestos materials.

Packaging

REFRASIL cordage is available on 12.7 – 152.4 mm [0.5" – 6"] spools or 76 x 254 mm [3" x 10"] cores. Approximate weight of cordage in a standard package is 0.68 kg (1.50 pound); 76 x 254 mm [3" x 10"] braider tube is 1.36 (3.0 pounds).

Typical applications

Cordage and yarn can be braided onto or around thermocouple wires, instrument elements, electrical cables, electrical cable harnesses and hoses.

Material data of REFRASIL® cordages and yarns

| Typical properties | Units | Yarn | Cordages [C-series] | |
|--------------------------------|------------|------------|---------------------|------------|
| | | FYT-100-Z | C100-3 | C100-4 |
| Nominal diameter | mm/in | 0.51/0.020 | 1.02/0.040 | 1.35/0.053 |
| Nominal avg. breaking strength | kg/lb | 0.91/2 | 4.99/11 | 5.90/13 |
| Lineal nominal yield | m/kg/yd/lb | 6613/3280 | 1412/700 | 666/330 |
| Shrinkage at 982 °C (1800 °F) | % | 3.7 | 3.1 | 5.0 |
| Ply count | | 5 | 8 | 16 |

FYT series is 4 strands per ply, 204 filaments per strand

