

# REFRASIL® Cordage & Yarn

Cordage & Yarn Products



## 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 2900°F (1593°C). REFRASIL Cordage and Yarn textiles will operate continuously at temperatures up to 1800°F (982°C) with little or no change in properties because they have been fired at 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 of 40 volts/mil of thickness.

C-series cordage and yarn are PTFE lubricated to facilitate handling and improve their abrasion resistance. If requested, cordage and yarn can be supplied with heavy PTFE or without lubrication.

**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.



HITCO CARBON COMPOSITES, INC.

1600 West 135<sup>th</sup> St. • Gardena, CA 90249  
www.hitco.com or www.refrasil.com  
e-mail: [refrasil@hitco.com](mailto:refrasil@hitco.com)  
Tel: 800.421.5444 • 310.527.0700  
Fax: 310.515.1779

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← Steel sheet annealing furnace curtain is made up of multiple rows of REFRASIL cordage in a mop-like fashion to reduce heat loss and fuel requirements.

The mop curtain → allows full penetration into the continuous furnace.



**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.

### Cordage and Yarn Properties

Product Code	Nominal Diameter (in.)	Nominal Breaking Strength (lb.)	Lineal Nominal Yield (yd./lb.)	Shrinkage At 1800°F (%)	Ply Count*
<b>YARN</b>					
FYT-100-Z	.020	2.5	3280	3.7	5
<b>C-SERIES CORDAGE</b>					
C-100-3	.040	11.8	700	3.1	8
C-100-4	.053	13.0	330	5.0	16

\* 4 strands per ply, 204 filaments per strand.

**Packaging**-REFRASIL Cordage is available on 6-1/2" spools or 3" x 10" cores. Approximate weight of cordage in a standard package is 1.50 pound; 3" x 10" braider tube is 3.0 pounds.

REFRASIL Yarn is wound on 4-1/2" braider tubes, (5/8" I.D. and 21/5 O.D.), taper end and covered with a polyethylene film. Net weight of a package is approximately .25 pound.

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



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