



TUFF TEMP CORPORATION

– HEAT RESISTANT TEXTILES AND BELTING –

928 Jaymor Road Suite C-150 • Southampton, PA 18966

Phone: (215) 322-9670 • www.tufftemp.com • Fax: (215) 322-3905

For over 25 years TUFF TEMP CORP. has been the worlds leading manufacturer and supplier of our award winning ultra high temperature resistant Kevlar Oven Roller Tapes and Ropes.

TUFF TEMP Kevlar Oven Roller Tapes and Ropes are used as a spiral wrap on the quench rolls of horizontal tempering ranges. Our TUFF TEMP Tapes and Ropes are used to help convey and protect the hot glass during the rapid cool down process.

During the thermal tempering process glass is heated up in the range at temperatures nearing the melting point. Soon thereafter the glass exits the furnace and is rapidly quenched with cool air to strengthen it. As the glass exits the furnace it is conveyed over a series of cold metal rollers. These quench rollers are spirally wrapped with our TUFF TEMP Kevlar Oven Roller Tape or Rope, to prevent the still hot glass from picking up unacceptable thermal checks.

Today, TUFF TEMP Kevlar Oven Roller Tapes and Ropes are supplied to most of the world's largest horizontal tempering range manufacturers. Our customers include the leading horizontal tempering range OEM's in all corners of the world. In addition to supplying the OEM's, TUFF TEMP CORP. also directly supplies numerous secondary glass tempering companies. Our global customers include many of the world's largest flat glass manufacturers as well as many small and midsize companies as well. Whether a multi-billion dollar multinational company, or a small local startup, all TUFF TEMP customers are treated with the highest level of customer service.

TUFF TEMP woven Kevlar Oven Roller Tapes and square braided Kevlar Oven Roller Ropes have become the industry standard for flat glass manufacturers and horizontal tempering range OEM's because our Tapes and Ropes have consistently proven to offer ***unmatched wear life and durability.***

In addition to superior wear life, TUFF TEMP woven Kevlar Oven Roller Tapes and braided square Kevlar Ropes offer several performance advantages over other competing roller wrap materials.

- **TUFF TEMP's dense woven and square braided constructions offer superior durability, and highly resists deformation.**

Competing roller wrap materials that are round braided ropes, tend to flatten out and get elliptical, especially when running heavier weight glass. This can lead to uneven roller heights throughout the quench section, causing the glass to skew during processing. TUFF TEMP woven Kevlar Oven Roller Tapes and braided square Kevlar Ropes resist deformation and maintain a consistent roller height throughout the range, even after extended use with running heavier weight glass.

- **Using only mechanically enhanced spun Kevlar yarns, TUFF TEMP Oven Roller Tapes and Ropes are completely non-marking on your glass.**

Competing roller wrap materials that utilize a shinier filament-based Aramid or Aramid blended yarn, tend to leave unacceptable oil marks on some more sensitive glass types.

TUFF TEMP woven Kevlar Oven Roller Tapes and square braided Kevlar Oven Roller Rope (TUFFCORD) are manufactured and supplied in the following standard sizes to meet your tempering needs. No Charge Samples are available for your consideration and trial testing.

Pattern	Width	Thickness	Minimal Order
76-411	1/2 inch (12.7 mm +0 / -1.20 mm)	1/4 inch (4.6 mm +/- 0.30 mm)	450 Feet (137.2 meters)
76-413	3/8 inch (9.5 mm +/- 0.8 mm)	1/8 inch (4 mm)	500 Feet (152.4 meters)
88-859	5/16 inch (8 mm +/- 0.8 mm)	1/8 inch (4 mm)	500 Feet (152.4 meters)
02-1870 (TUFFCORD)	5.5 mm x 5.5 mm Square Rope	5.5 mm x 5.5 mm Square Rope	426 feet (130 meters)