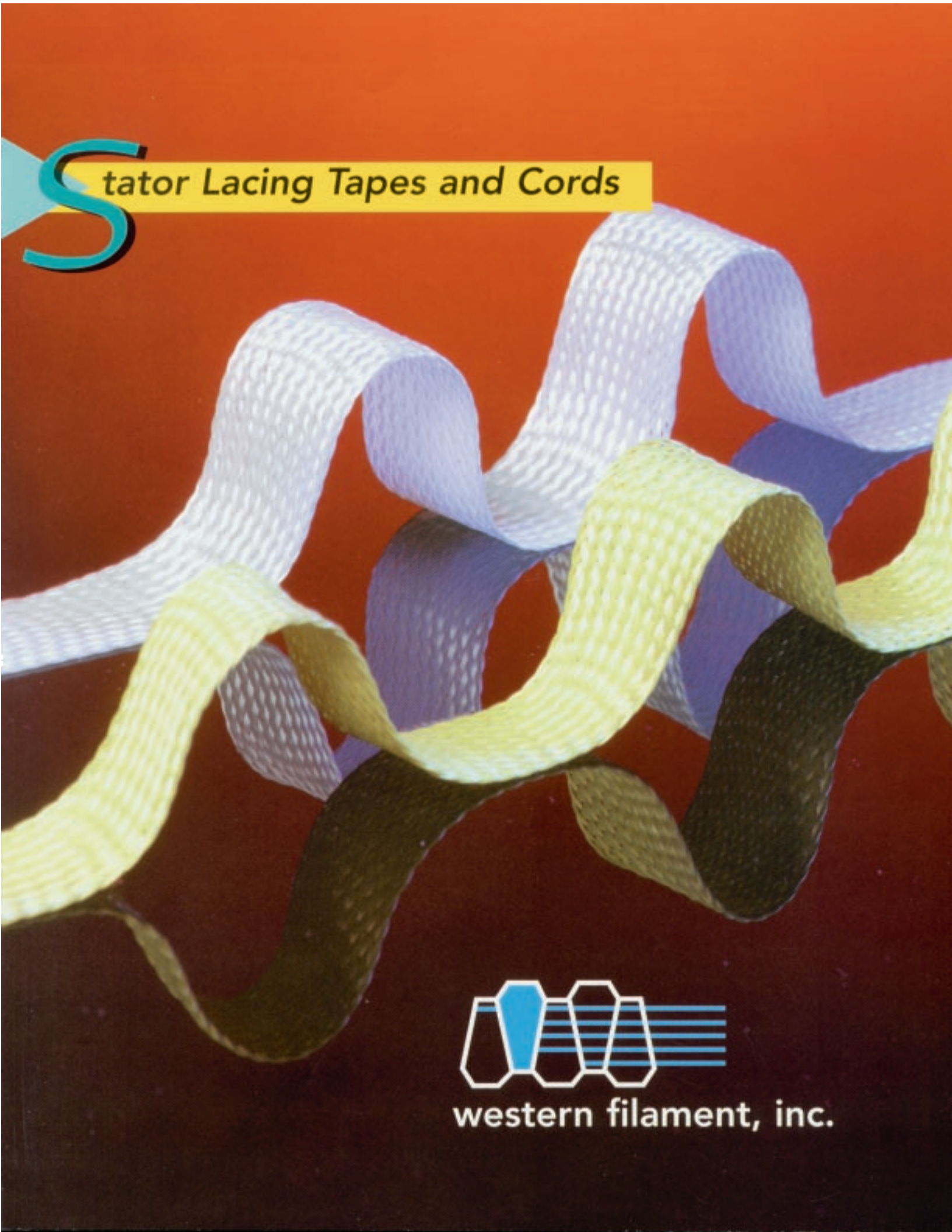
Stator Lacing Tapes and Cords



western filament, inc.

western filament, inc.

Only single source for ALL Stator Lacing needs

At Western Filament, Inc., specialists in textiles, chemicals, plastics, and process control, combine their skills to produce a complete line of flat or round braided tapes and twisted cords to meet the most stringent stator lacing requirements.

Capabilities:

- More than 1800 heads of modern braiding equipment (8 through 120 carriers) devoted exclusively to processing man-made fibers including: Polyester, Nylon, Nomex®, Teflon®, Kevlar®, Fiberglass, Spectra® and Ceramics.
- Modern twisting facilities to process any fiber/denier combination.
- Complete in-house dye facility for fast turn-around of colored material.
- Complete Mil-Spec laboratory to support new product development and testing to military and customer requirements.
- Fully staffed quality assurance department to maintain qualification to the most stringent requirements.
- Constructions include: Flat Braided - .025" through 2" widths; Tubular - .020" through 3 1/2" diameter; hermetics qualified.
- Applications specialists are available to assist you in applying existing constructions, or to help design a new construction to meet the most demanding requirements.

Flat Braided Tapes

Trouble free lacing for Stator Tying, Coil Wrapping and other electrical applications. Shrinks to fit, lays flat, stays in place, and won't snag or fray.

Polyester Tapes (Class F)[1]

Typical shrinkage 10-11% at 325°F/1hr.

High tenacity continuous filament braided polyester yarn. Western Filament's DHS tape minimizes snagging, improves the insulation bond, and when coated will not frizz, fray or unravel.

- Suggested coatings:

"CL" Polyurethane, "W" Wax,
"X" Untreated (Hermetic Applications)

PART NUMBER	WIDTH INCHES	THICKNESS INCHES	NOMINAL BREAK LBS.	STANDARD PUT-UP
DHS-00	.500	.025	700	250 ft
DHS-0	.375	.020	410	250 yds.
DHS-1	.225	.015	190	250 yds.
DHS-2	.125	.010	100	250 yds.
DHS-3	.080	.010	60	500 yds.
DHS-4	.62	.010	45	500 yds.
DHS-XT-0	.250	.015	240	250 yds.

Pre-Shrunk Polyester (Class F)[1]

Less than 3% RS at 350°F/1hr.

For fine wire or soft insulation systems where shrinkable tensions are undesirable.

- Suggested coatings:

"CL" Polyurethane, "W" Wax, "X" Untreated

PART NUMBER	WIDTH INCHES	THICKNESS INCHES	NOMINAL BREAK LBS.	STANDARD PUT-UP
DPS-00	.500	.032	700	250 ft.
DPS-0	.375	.028	410	250 yds.
DPS-1	.225	.015	190	250 yds.
DPS-2	.125	.015	100	250 yds.
DPS-3	.080	.010	50	500 yds.
DPS-4	.62	.010	40	500 yds.

Kevlar® Tape (Class H)

A high temperature, high strength material from Dupont. Kevlar provides the advantages of fiberglass without causing skin irritation and processing problems. Kevlar is approximately four times stronger than Nomex and will retain 90% of its strength at 482°F.

- Suggested coatings:

"CL" Polyurethane, "X" Untreated

PART NUMBER	WIDTH INCHES	THICKNESS INCHES	NOMINAL BREAK LBS.	STANDARD PUT-UP
KST-00	.500	.030	1750	125 yds.
KST-0	.375	.026	1500	250 yds.
KST-1	.225	.014	372	250 yds.
KST-2	.125	.010	237	250 yds.
KST-3	.080	.010	137	500 yds.

Fiberglass Tape (Class H)

Fiberglass, the industry standard for "Class H" applications and is strong, heat resistant, and non-flammable. Maintains 75% of its tensile strength at 650°F and is highly resistant to acids and alkalis. It is available in a variety of flat braided constructions.

- Suggested coatings:

"CL" Polyurethane, "S" Silicone

PART NUMBER	WIDTH INCHES	THICKNESS INCHES	NOMINAL BREAK LBS.	STANDARD PUT-UP
FST-0	.220	.017	250	250 yds.
FST-1	.180	.010	170	250 yds.
FST-2	.150	.010	150	250 yds.
FST-3	.100	.010	110	500 yds.

Nomex® Tape (Class H)

Dupont's Aramid fibers are braided into a smooth flat tape which is stable at high temperatures, self-extinguishing, and suitable for hermetic or conventional applications.

- Suggested coatings:

"CL" Polyurethane, "X" Untreated

NOTE: A special type 431 Nomex is available for wet transformer applications. Be sure to specify. (Example: NFB-2CL, type 431.)

PART NUMBER	WIDTH INCHES	THICKNESS INCHES	NOMINAL BREAK LBS.	STANDARD PUT-UP
NFB-1	.225	.016	85	250 yds.
NFB-2	.110	.015	50	250 yds.
NFB-3	.075	.010	35	500 yds.

Polyester/Fiberglass Tape (Class F Plus)

Fiberglass strands are run axially through a flat braided polyester tape to provide extra strength and a thermal overload factor for "Locked-Rotor" and temporary overloads which exceed the softening point of polyester. The softer polyester fibers surround the fiberglass strands to minimize skin irritation and processing problems.

- Suggested coatings:

"CL" Polyurethane, "X" Untreated

PART NUMBER	WIDTH INCHES	THICKNESS INCHES	NOMINAL BREAK LBS.	STANDARD PUT-UP
PGS-0	.250	.022	200	250 yds.
PGS-1	.020	.021	175	250 yds.
PGS-2	.150	.021	130	250 yds.

Round Braided

Fiberglass Braided Cord (Class H)

Fiberglass braided in a round form to give you an economical class "H" material. This strong heat resistant cord will maintain 75% of its original strength at 650°F and is highly resistant to acids and alkalis. We tightly braid this cord to prevent snagging and offer a liquid vinyl coating (A) to eliminate skin irritation and to add abrasion protection.

• Suggested coatings:
"A" Liquid Vinyl, "CL" Polyurethane, "S" Silicone

PART NUMBER	APPROX. DIAMETER INCHES	NOMINAL BREAK LBS.	YIELD YDS./LBS. UNCOATED	STANDARD PUT-UP
FOR-1	.060	160	191	1 lb.
FOR-2	.050	130	268	1 lb.
FOR-3	.042	95	344	1 lb.
FOR-4	.040	70	420	1, 2 lbs.
FOR-5	.032	50	528	1, 2 lbs.

Polyester Braided Cord (Class F)[1]

A rounded braided cord made from high tenacity continuous filament polyester. This cord is specifically designed to exceed the most stringent hermetic applications. Braided in a tight round form this cord needs no coating to keep from fraying or unraveling. This is the product of choice for trouble-free automatic stator lacing.

• Suggested coatings:
"X" Untreated, "W" Wax

PART NUMBER	APPROX. DIAMETER INCHES	NOMINAL BREAK LBS.	YIELD YDS./LBS. UNCOATED	STANDARD PUT-UP
DOR-100	.030	100	573	500 yds.
DOR-80	.025	80	769	500 yds.
DOR-50	.023	50	1189	1000 yds.
DOR-30	.022	30	1925	1000 yds.

Dry Surge Ring Cable for VPI Systems

Texturized Polyester yarn is braided into a flat, tubular construction. This dry Surge Ring encircles the end-turns and becomes a ridged, non-conductive band and/or restraining device. It is available with stranded Kevlar core *(stronger than glass)* for heavy duty applications, or as a tubular sleeving for light duty or motor repairs. It requires no refrigeration and has an infinite shelf life. *Ideal for the small motor repair shop, or VPI systems.*

Available on request in larger or smaller sizes and in glass over glass in texturized or continuous filament constructions.

Heavy Duty Dacron/Kevlar Surge Rings

PART NUMBER	APPROX. DIAMETER INCHES	NOMINAL BREAK LBS.	STANDARD PUT-UP
EP1-375	3/8"	1500	100 ft.
EP1-625	5/8"	3500	100 ft.
EP1-100	1"	5700	100 ft.

Texturized Polyester Surge Rings

EP2-375	3/8"	1450	100 ft.
EP2-625	5/8"	2600	100 ft.
EP2-100	1"	5100	100 ft.

Twisted Cords

Kevlar® Twisted Cord (Class H)

A superior class "H" product that combines strength with high heat resistance. This Dupont Kevlar® twisted cord has good abrasion protection and has excellent solvent resistance.

• Suggested coatings:
"CL" Polyurethane, "W" Wax, "X" Untreated

PART NUMBER	APPROX. DIAMETER INCHES	NOMINAL BREAK LBS.	YIELD YDS./LBS. UNCOATED	STANDARD PUT-UP
KRT-1	.060	250	350	1 lb.
KRT-2	.046	200	542	1 lb.
KRT-3	.030	150	1118	1 lb.
KRT-4	.010	45	3620	1 lb.

Motor-Ty Hand Tying Cord (Class F)[1]

A 155°C hand-tying cord designed to upgrade and replace Class A cotton/linen materials, Motor-Ty utilizes continuous filament, high tenacity polyester yarn, twisted into a smooth concentric cord, and impregnated with microcrystalline fungicidal wax. This provides superior temperature range, greater strength, lighter weight, and lower costs than natural fibers.

PART NUMBER	APPROX. DIAMETER INCHES	NOMINAL BREAK LBS.	STANDARD PUT-UP
64 CORD	.036	70	600 yds.
96 CORD	.050	85	400 yds.
128 CORD	.062	115	300 yds.

Polyester Cord (Class F)[1]

Typical shrinkage 10-11% at 325°F/1hr.

High tenacity polyester yarn is twisted into a smooth round 3-ply construction. It provides improved heat range, added strength, and excellent heat shrink characteristics. Increased yield over braided constructions makes it the most economical for high-volume automatic applications. Available on a straight tube or cone wound.

• Suggested coatings:
"CL" Polyurethane, "W" Wax, "X" Untreated

PART NUMBER	APPROX. DIAMETER INCHES	NOMINAL BREAK LBS.	YIELD YDS./LBS. UNCOATED	STANDARD PUT-UP
DRT-20	.012	16	3260	1 lb.
DRT-30	.014	35	2627	1, 2 lbs.
DRT-45	.026	45	1441	1, 2, 4, 6 lbs.
DRT-50	.028	50	1190	1, 2, 4, 6 lbs.
DRT-65	.030	65	1060	1, 2, 4, 6 lbs.
DRT-100	.040	100	860	1, 2, 4, 6 lbs.
DRT-150	.055	150	405	1, 2, 4 lbs.

Pre-Shrunk Polyester Cord

Less than 3% RS at 350°F/1hr.

For fine wire or soft insulation systems where shrinkable tensions are undesirable. Available on a straight tube or cone wound.

• Suggested coatings:
"CL" Polyurethane, "W" Wax, "X" Untreated

DRT-45PS	.026	45	1300	1, 2, 4, 6 lbs.
DRT-50PS	.028	50	1200	1, 2, 4, 6 lbs.
DRT-65PS	.030	65	800	1, 2, 4, 6 lbs.

Nomex® Cord (Class H)

Dupont's Aramid yarn is twisted into a high strength, smooth round construction that resists high temperatures, is self-extinguishing, and suitable for hermetic and/or conventional applications.
Color: Natural (white).

• Suggested coatings:
"CL" Polyurethane, "X" Untreated

PART NUMBER	APPROX. DIAMETER INCHES	NOMINAL BREAK LBS.	YIELD YDS./LBS. UNCOATED	PUT-UP TUBE
NRT-1	.055	100	325	1 lb.
NRT-2	.045	70	490	1 lb.
NRT-3	.026	40	1117	1 lb.

Coatings and Finishes

Holds Knots, Prevents Snagging, Fraying, Frizzing, Unraveling and Improves Bondability

Western Filament, Inc. offers a complete line of proprietary coatings and finishes especially developed for stator tying applications. These coatings improve the knot holding characteristics and the bond between the varnish and yarn. In addition they prevent snagging, fraying, frizzing and unraveling.

"CL" Western Filament's exclusive polyurethane coating which saturates and bonds in all types of resin and varnish systems. This coating is a proven performer with over 30 years of use in all types of applications.

"S" Silicone finish applies smoothly to give added abrasion protection and fiber stability.

"A" Liquid vinyl finish to greatly enhance abrasion protection and bondability. It protects users from skin irritation when using glass fibers.

"X" Untreated product suited for stringent hermetic applications.

"W" Microcrystalline fungicidal wax for easy hand tying operation.

To order coatings, add the code letter designating the finish to the end of the part number. "X" for untreated, "CL" for our exclusive polyester coating, "S" for silicone finish, "A" for vinyl finish, "W" for wax.
Example: DHS-1 with CL Coating = DHS-1CL

Other coatings are available for specialized applications. Call your local distributor or the factory direct for engineering assistance.

[1] **Engineering Note:** Polyester fibers alone are not rated Class F, however they are approved and widely used in Class F systems (up to 155°C). CAUTION: Variations in materials and processing techniques will alter results. We recommend that each user first test and qualify to their own requirements.

western filament, inc.
630 Hollingsworth Street
Grand Junction, Colorado 81505
970-241-8780 • Fax 970-241-8682

Distributed by: