

Technical data sheet · Hi-Shrink Tape

Polyester Hi-Shrink Tape

165°C

330°F use temperature

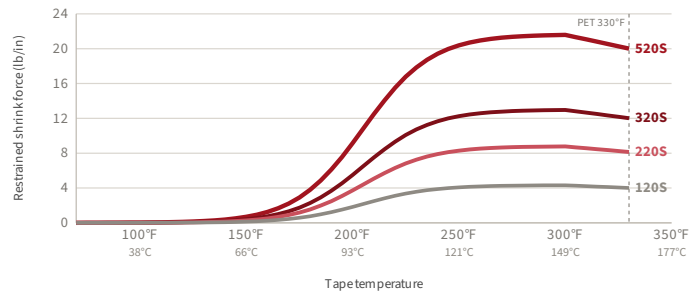
Heat-shrinkable polyester film that consolidates composites, rubber, and coils as they cure. Wrap. Cure. Remove.

Typical properties

Material	Polyester
Thickness	0.001 · 0.0014 · 0.002 · 0.003 · 0.005 in
Use temperature	330°F · 165°C
Shrink onset · full	≈ 150°F · 230 – 300°F
MD shrink	5 – 20 %
Shrink force	2.48 – 21.64 lb/in
Max wrapping tension	15 – 130 lb/in by SKU
Release	S · R · I · RR/D · RSI
Widths · cores	0.5 – 2.5 in · 1.5 / 3.0 in
Shelf life	Indefinite, stored cool and dry

Restrained shrink force vs. temperature

polyester series · representative curve shapes · plateau values from lab data at 150°C



Shrink begins near 150°F; force reaches its plateau between 230 and 300°F and holds through cure. Within polyester, force scales with thickness and shrink %.

Products

Representative SKUs. Force = max shrink force at 150°C; Max wrap = max wrapping tension; both lb per inch of width. I, RR/D, RSI, P, and B versions of most SKUs stocked or to order.

SKU	Release	Shrink	Force lb/in	Max wrap lb/in
100 Series · 0.001 in				
106S	None	6%	2.54	15
106R	PTFE, OD (R)	6%	2.48	16
112S	None	12%	2.95	17
112R	PTFE, OD (R)	12%	2.88	18
120S	None	20%	4.33	18
120R	PTFE, OD (R)	20%	4.21	19
140 Series · 0.0014 in				
1412RR	PTFE, both (RR / D)	12%	4.83	30
1420S	None	20%	7.57	37
300 Series · 0.003 in				
312R	PTFE, OD (R)	12%	10.07	60
320S	None	20%	13.00	67
320R	PTFE, OD (R)	20%	12.38	70

SKU	Release	Shrink	Force lb/in	Max wrap lb/in
200 Series · 0.002 in				
205S	None	5%	2.71	33
205R	PTFE, OD (R)	5%	2.76	35
210S	None	10%	5.30	38
210R	PTFE, OD (R)	10%	5.17	40
212S	None	12%	5.49	43
212R	PTFE, OD (R)	12%	5.64	45
220S	None	20%	8.80	55
220R	PTFE, OD (R)	20%	8.59	57
500 Series · 0.005 in				
515R	PTFE, OD (R)	15%	20.45	130
520S	None	20%	21.64	120

S non-coated · R PTFE release, OD side · I PTFE, ID side · RR / D PTFE both sides · RSI silicone release · P perforated · B perforated + coated

Best for

- Composite tubing and shafts, 1 in to 36 in+
- Silicone and vulcanized rubber hose
- High-voltage motor and generator coils
- Golf, arrow, and fishing-rod shafts

Not for

- Cures above 165°C — HT or X Series
- Bleed-prone resins on 1 mil film (100 Series)
- Cosmetic surfaces on 3 and 5 mil film
- Non-round parts without a tool and intensifier

How to wrap it

- Wrap at 5–10 lb/in; never above the SKU's max wrapping tension
- Start at 50% overlap (2 layers everywhere)
- More compaction: overlap first (66.7% = 3 layers, 75% = 4), then shrink %, then thickness
- Cure to at least 230°F at the tape for full force

What the part sees

On a 4 in tube, two layers of 220R at 7.5 lb start at 6.5 psi, dip to 3.4 psi at shrink onset, then recover to 5.8 psi at a 263°F cure and hold. A nylon wrap follows the first leg and never comes back. For autoclave-level pressure: 520S at 83% overlap on a 2 in mandrel models near 90 psi.

Don't see your configuration?

Custom widths, lengths, and cores are routine — up to 8,000 m on a traverse-wound spool. If the product you need isn't listed, tell us about the application; we would rather talk it through and find out whether we can make it than let you settle for something close.

Compaction pressure: the five levers

Lever	What it does
1 Tape	Material, thickness, and shrink % set the force per inch of width
2 Wrap tension	Typically 5–10 lb/in; stay at or below the SKU maximum — above it the film elongates at application and delivers less at cure
3 Overlap	Layers over each point: 50% = 2, 66.7% = 3, 75% = 4, 87.5% = 8. Use values that give a whole number everywhere
4 Diameter	Fixed by the part. Pressure $\approx$ layers $\times$ force $\div$ radius — double the diameter, half the pressure
5 Shrink %	And thickness — within polyester, the lever to reach for before changing series

Ordering, samples, and engineering support

Complimentary samples of any in-stock product — shrinktape.com or (440) 505-7640. Application engineering is available for selection, trials, and troubleshooting — sales engineers work with your process engineers, on site where it helps.

Widths 0.5 – 2.5 in in 0.25 in steps · cores 1.5 or 3.0 in ID · handheld rolls 100 yd · flat-pad rolls 750 yd (about 9 in diameter), and flat pads to about 12 in diameter on a 3 in core, length depending on film thickness · traverse-wound spools to 8,000 m · release coat facing outward unless specified (R = OD, I = ID).

The Dunstone Company, Inc.

17930 Great Lakes Parkway
Hiram, OH 44234
Main (440) 505-7640 · Fax (440) 372-4625
info@shrinktape.com · shrinktape.com
Made in the USA · ISO 9001:2015