

Technical data sheet · Hi-Shrink Tubing

FEP Hi-Shrink Tubing

260°C

500°F service temperature

A heat-shrinkable fluoropolymer sleeve that turns a bare tool into a release surface in one step. Slide it on, heat it, and it recovers into a tight, seamless, non-stick covering.

Typical properties

Material	FEP (fluorinated ethylene propylene)
Wall thickness	0.002 – 0.010 in
Expanded ID, as supplied	1.05 – 7.75 in
Length	50 – 2,000 ft continuous
Recovery	≈ 10 % of circumference
Shrink initiation	95°F · 35°C
Service temperature	500°F · 260°C
Melting point	512°F · 267°C
Storage	85°F · 29°C or below
Shelf life	Indefinite below 29°C



How to specify

Element	Example	Notes
Tool diameter	3.90 in	Largest diameter, plus any taper — Dunstone selects the expanded ID
Wall	0.004 in	0.002 – 0.010 in; Dunstone recommends for the tool and cure
Length	500 ft	Continuous, 50 – 2,000 ft; cut lengths to order
Cure	350°F epoxy	Confirm the peak stays below 260°C (500°F)

Tubing is not tape

Hi-Shrink Tape is selected for compaction force. Hi-Shrink Tubing is selected for surface and release. Its 10% recovery seats it firmly on the tool; it is not sized to consolidate a laminate. Many processes use both: FEP on the tool, tape over the layup.

Application

- Cut to length with allowance for end recovery; slide over the clean, dry tool.
- Heat evenly from one end to the other so the film recovers progressively and pushes air out ahead of it.
- Trim and seal the ends as required. Lay up directly on the sleeve.
- After cure the part releases from the FEP; the sleeve stays on the tool for repeat cycles.

What it is

Extruded FEP tubing, supplied expanded and recovered by heat to about 10% smaller in circumference. FEP releases from epoxy, BMI, and most matrices, tolerates 260°C, and is smooth enough to become the finished surface of a part cured against it. It dresses mandrels, cauls, and forms before layup, so the tool needs no release agent and the part comes off clean. It was originally developed to sleeve the air-bladder stringers used to lay up composite fuselages, and that is still its largest use.

Best for

- Mandrels and round tooling that need a release surface
- Cauls and forms where a seamless surface should print onto the part
- Replacing release agents and hand-taped release film on repeat tooling

Not for

- Compaction — use Hi-Shrink Tape
- Tools more than ~10% below the supplied diameter, or above it
- Cures above 260°C
- Storage above 29°C (85°F) — shrink initiates at 35°C



Keep it cool

Shrink initiates at 35°C (95°F).
Store reels at 29°C (85°F) or below, out of sun.

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.

Ordering, samples, and engineering support

Sample lengths for your tool diameter — 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.

Expanded ID 1.05 – 7.75 in · wall 0.002 – 0.010 in · 50 – 2,000 ft continuous. Custom diameters, walls, and lengths to order; sizing to your tool is part of the order.

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