

PET REFLOW Heat Shrink Tubing

A high-performance, PFAS-free alternative to FEP heat shrink for reflow applications. Nordson MEDICAL's new PET (polyethylene terephthalate) Reflow Heat Shrink line delivers lamination results comparable to traditional FEP, with nearly 2x the line speed—helping you increase throughput and reduce costs.

Backed by 40 years of innovation in PET heat shrink, our thicker-walled Reflow product is engineered to bond seamlessly with common jacket materials, offering consistent quality and affordability from the industry leader.

COMPATIBILITY

PET Reflow Heat Shrink has been demonstrated to effectively laminate multi-layer catheters as well as FEP heat shrink with a variety of jacket materials, such as¹:

- **Pebax 35D**
- **Pebax 55D**
- **Pebax 72D**
- **Polyamide 12 (ML 24)**

HIGH CAPACITY PRODUCTION

Produced using Nordson MEDICAL's proprietary high-volume manufacturing process, PET Reflow Heat Shrink is built to support both current and future reflow needs with scalable capacity to grow alongside your business. All manufacturing takes place in our Salem, New Hampshire, USA facility.

RECOMMENDED REFLOW PARAMETERS²

- **Pebax:**
Temperatures: 450°F - 560°F
Line speeds: 0.6 mm/sec – 8.0 mm/sec
- **Polyamide 12 (ML 24):**
Temperatures: 520°F - 620°F
Line speeds: 1.4 mm/sec – 2.5 mm/sec

EASY REMOVAL AFTER REFLOW

PET Reflow Heat Shrink can be cleanly removed by slitting the tubing with a standard tool, leaving no residue behind.

¹ Peel test data of file
² Reflow test data on file. Parameters may vary depending on jacket material, thickness and equipment used.

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TECHNICAL INFORMATION

Sizing

- Diameter range: 0.045" - 0.275" (1.14 mm - 6.99 mm)
- Wall thickness: 0.003" (0.08 mm)
- Lengths: 6.0" - 85.0" (15.2 cm - 215.9 cm)
- Tight fit is best: 15% gap or less*
- Shrink ratios: At least 1.1:1**

Temperatures

- Material recovery temp range: 185°F - 374°F (85°C - 190°C)
- Material melt temp: 489°F (254°C)

Material Compatibility

PET Reflow Heat Shrink is PFAS-free and releases easily from most common thermoplastics such as Pebax and nylon.

- *NOTE:** PET Reflow Heat Shrink should be sized no larger than 15% above the maximum diameter of your part. Recommended approach is to use a heat shrink tube with a minimum expanded ID that just clears the maximum diameter of your part.
- **NOTE:** Recovery >20% can be achieved by drawing or holding the ends of the heat shrink as it is heated.

PET REFLOW OUTPERFORMS FEP IN LINE SPEED

PET Reflow Heat Shrink increases throughput versus FEP heat shrink by an average of 67%, increasing manufacturing capacity and reducing costs.

Reflow Line Speed Parameters Using Similar Temperature:

Reflow Temp	Reflow Speed	Heat Shrink Material Used
480°F	1.2 mm/sec	FEP
450°F	2.0 mm/sec	PET

Reflow testing using PTFE liner with Pebax 72D strike layer and outer jacket of Pebax 55D.
Line speeds may vary depending on jacket material, thickness, reflow equipment and process settings.

ADDITIONAL MECHANICAL/ELECTRICAL PROPERTIES OF PET REFLOW

- Very high tensile strength up to and exceeding 20,000 psi depending upon tubing design
- Extremely smooth surface finish of ID transfers to process components
- Available in clear, white, and black (other colors may be available upon request)
- Meets USP Class VI and ISO 10993 requirements