

Range of Production and Supply

Fluoroplastic heat-shrink tubing is manufactured from choice tube materials. The expansion process is done close to the respective melting temperature, with no negative effects on the mechanical, electrical or chemical properties of the material. When subjected to the same temperature a second time, the heat-shrink tubing will shrink back almost to its original size. As for PTFE, shrinkage ratios of 2:1 and 4:1 have become the general practice. Somewhat higher shrinkage ratios can be achieved. As a general rule, FEP shrinkage ratios are lower, the usual ratio being 1.3:1. MFA shrinkage ratios are similar to those of FEP, the usual ratio being also 1.3:1. The maximum shrinkage ratio for PFA is approx. 1.2:1. Bearing this in mind, please consult your us prior to making use of any PFA shrink-tubing, in order to check the possibilities.

FLUOROPLASTIC HEAT-SHRINK- TUBING PTFE • FEP • MFA • PFA

Which is the right material for the intended use?

Certainly, there is no hard and fast rule to go by. However, it can be said that because of their high shrinkage ratio PTFE shrink-tubing is an excellent choice where objects of various dia-

meters are to be sheathed. However, the object to be worked on should withstand temperatures of up to 350 °C at least for a short time. As a general rule, a fusible fluoroplastic material such as FEP, MFA or PFA should be used for object diameters of over 40 mm. But here, too, the object should withstand temperatures of at least up to 220 °C. Where a very smooth surface is required - such as to avoid excessive deposits e.g. of liquid agents - FEP and PFA should be replaced with MFA. For more technical data, please refer to the last page of the catalogue. Considering the many potential solutions, it would be safer to consult your Isofluor team. We shall be pleased to be of service to you.



Product Facts and Data at a Glance

▪ supplies in PTFE, FEP, MFA and PFA ▪ large range of standard products to choose from ▪ resistant to aggressive

substances ▪ temperature stability at up to +260°C, depending on the material ▪ airtight and humidity-proof sealing can be provided for ▪ customized manufacture to your specifications possible

Processing Hints and Information

The working temperature should be chosen depending on the type of fluoroplastic material. For PTFE it is approx. 340 °C and can be recognized, as the heat-shrink-tube turns transparent on reaching the gel temperature. The shrink-on temperature for FEP should range between approx. 160 and 220 °C. Overheating will result in cracks or dripping and the tube loses its shrinking potential.

It can happen especially with PTFE that the object to be sheathed does not have the right temperature and the heat-shrink-tubing will not fit tightly. It becomes prematurely rigid. A firm shrink-on fit can be obtained by heating up the object accordingly.

The object must be heated uniformly around the periphery. Irregular heating and cooling often causes wrinkles and cracks. Ovens, infrared radiators, fan heaters or even a clean gas flame can be used as a heat source. Please note that the shrinking process can also result

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in a longitudinal shrinkage or elongation. The change in length may be as much as $\pm 10\%$.

New: Fluoroplastics – Heat-Shrink-Tubing with a Shrinking Temperature Range of 80-120 °C

This allows a substantial reduction of the energy input required for shrinking. Since there are cases where the object to be covered does not withstand distinctly higher shrinking temperatures, only these new heat-shrink-tubing may be used. They have proved most suitable for the use as roll covers and probes. Your Isofluor team will be pleased to help with more information on our range of supplies.

Shrinking-Temperatures °C				
	PTFE	PFA	FEP	DUAL
Shrinking Temperature	330	220	190	330
Melting Temperature	–	310	275	275
Working Temperature	260	260	205	205

