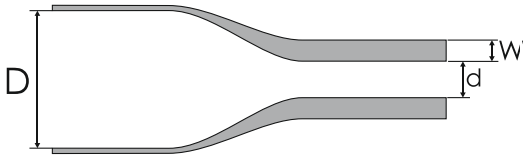
PTFE Heat Shrink

Heat Shrink 4:1 – HST-R



KEY
D – Inside Diameter Expanded
d – Inside Diameter Recovered
W – Wall Thickness Recovered

Material	PTFE - Polytetrafluoroethylene $(CF_2)^n$
Applicable Standards	AS23053/12 Class 5
Manufacturer	Grange Tubes LLP
Country of Origin	UK
HS Code	39173200
ECCN	EU99
Shelf Life & Storage	Up to 12 years dimensional life when stored between 0 to 35°C

PART CODE	D Min		d Max		W		PACKAGE	
	in.	mm	in.	mm	in.	mm	Reel may contain tape joins	1.22m Lengths
HST-R1/8	.125	3.18	.037	.94	.012±.002	.30±.05	100m	50pcs
HST-R3/16	.187	4.75	.050	1.27	.012±.002	.30±.05	100m	50pcs
HST-R1/4	.250	6.35	.063	1.60	.012±.002	.30±.05	100m	50pcs
HST-R5/16	.312	7.92	.078	1.98	.012±.002	.30±.05	100m	50pcs
HST-R3/8	.375	9.53	.096	2.44	.012±.002	.30±.05	100m	50pcs
HST-R7/16	.438	11.13	.112	2.84	.012±.002	.30±.05	100m	25pcs
HST-R1/2	.500	12.70	.144	3.66	.015±.004	.38±.10	50m	25pcs
HST-R9/16	.562	14.27	.155	3.94	.015±.004	.38±.10	50m	25pcs
HST-R5/8	.625	15.88	.178	4.52	.015±.004	.38±.10	50m	25pcs
HST-R11/16	.687	17.45	.198	5.03	.015±.004	.38±.10	50m	25pcs
HST-R3/4	.750	19.05	.224	5.69	.015±.004	.38±.10	50m	25pcs
HST-R7/8	.875	22.23	.244	6.20	.015±.004	.38±.10	50m	25pcs
HST-R1	1.000	25.40	.278	7.06	.015±.004	.38±.10	50m	25pcs
HST-R1¼	1.250	31.75	.347	8.81	.015±.004	.38±.10	50m	25pcs

How to shrink PTFE Heat Shrink Tubing

To apply heat and shrink the fluoropolymer heat shrink tubing, you will require a hot air gun. We recommend a gun with a capacity of 1.5KW. Please take care when handling hot air guns and hot components.

1. Select the correct heat shrink sleeve size. The expanded tube diameter should be significantly larger than the component diameter to allow for a generous amount of shrinkage. The recovered sleeve diameter should be smaller than the component diameter to cover the component.
2. If covering a large thermal mass with PTFE, preheat the component in an oven at 400°C to prevent the chilling of the PTFE heat shrink tube which causes a loose fit.
3. Cut the chosen sleeve to the right length, allowing for a small overlap, and apply over the component to be coated.
4. Set the correct temperature on the hot air gun (see heat shrink temperature above) and start shrinking at one end of component. Point the gun slightly away from the direction you are shrinking to avoid premature shrinking which cause wrinkles.
5. Slowly rotate the component and gradually move the hot air gun along the length of the part. The gun should shrink 12mm of heat shrink for each revolution.
6. Take care to allow the free end of the sleeve to stay loose and not to bind on the component. The tube normally lengthens during shrinking, so you should observe a lengthening of the free end.
7. Continue to shrink past the end of the component and allow the sleeve to neck down to smaller diameter.
8. Allow the component to cool and trim the excess material with a sharp knife blade.

Fume precautions during heat shrinking: Like all plastics and rubber, fluoroplastics decompose at high temperatures and give off unpleasant fumes. Unlike other polymers, the fumes from fluoroplastics are odourless and therefore, may not be noticed during overheating of the material. Ample ventilation must always be provided when heating PTFE heat shrink materials above 300°C. Where they are used in a production process, extraction equipment is recommended.

APPLICATIONS

PTFE Heat Shrink is a non-flammable shrink tube which provides insulation and mechanical protection in severe chemical and thermal environments. It provides a tight, protective covering to items that will be subjected to the extremes of heat, corrosion, shock, moisture, and other critical environmental conditions. Typical applications using our heat shrink tubing are component protection, insulation, waterproofing, mechanical protection, strengthening, shock protection, abrasion protection, corrosion protection, encapsulation, splicing, marking, and coding. The high mechanical strength and extremely low coefficient of friction make it ideal for reducing damage to bearing shafts and similar applications.

SIZE RANGE

There are two ranges of Heat Shrink:

- HST with a 2:1 shrink ratio.
- HST-R with a 4:1 shrink ratio.

Other sizes available subject to special order.

COLOUR RANGE

PTFE Heat Shrink is available in 12 colours including natural.

PACKAGING

Supplied in random lengths on reels or 1.22m cut lengths.

VALUE ADDED SERVICES

Cut lengths.

PRODUCT COMPLIANCE

European Regulation (EC) No. 1907/2006 The Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
None of the Substances of Very High Concern (SVHC) included in the list of candidates for authorisation published by the European Chemicals Agency are present in concentrations greater than those permitted in any of the products manufactured and supplied by Grange Tubes LLP.
Directive (EU) 2017/2102 amending Directive 2011/65/EU - The Restriction of the use of certain Hazardous Substances in electrical and electronic equipment – RoHS3
None of the substances restricted by RoHS3 are present in quantities above those permitted within the regulation in any of the products manufactured and supplied by Grange Tubes LLP.