

- Highly flexible
- Flame retarded
- Tough and durable
- Excellent insulation and abrasion protection
- Expansion ratio as high as 3:1

HF
High flex
heat-shrinkable tubing

High flex heat-shrinkable tubing (HF) provides insulation and protection to cables where high cable flexibility is an important concern. HF tubing provides a high level of

abrasion protection as well as providing excellent electrical insulation.

HF tubing is ideal for jacketing cables where sharp bends are required. It is also suitable for cables which are subject to

motion. Such situations are common in industrial machinery, transportation equipment, robotics, etc.

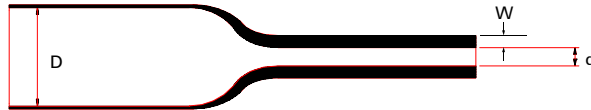
Sealing for water and corrosion protection can be achieved using Tape sealant (S-1305) or adhesive (S-1297).

Temperature rating

Operating temperature range: -55°C to +90°C

Minimum recovery temperature: +120°C

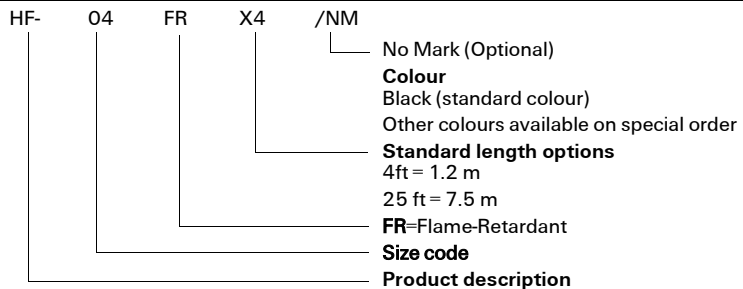
Ordering information



Internal diameter		Wall thickness				Size description
D (min) Expanded as supplied		d (max) Recovered after heating		W (nom) Total wall recovered after heating		
mm	Inches	mm	Inches	mm	Inches	
10.1	(0.4)	3.8	(0.15)	1.5	(0.06)	HF-04
19.0	(0.75)	5.6	(0.22)	1.5	(0.06)	HF-07
27.9	(1.1)	9.5	(0.38)	2.6	(0.10)	HF-11
33.0	(1.3)	9.5	(0.38)	2.6	(0.10)	HF-13
38.1	(1.5)	12.7	(0.5)	3.0	(0.12)	HF-15
43.1	(1.7)	12.7	(0.5)	3.0	(0.12)	HF-17
50.8	(2.0)	19.1	(0.75)	3.5	(0.14)	HF-20
68.5	(2.7)	22.9	(0.9)	3.5	(0.14)	HF-27

Standard lengths for all sizes are 1.2 and 7.5 metres.

Ordering example:



Adhesive/Sealant Descriptions:

S1297	General purpose hot-melt adhesive tape (supplied separately)
S1305	Flame retarded sealant tape (supplied separately)

HF

Performance

HF is a black, highly flexible, cross-linked polyolefin-based material. It is flame retarded and heat resistant.

	Test method	HF
Mechanical		
Tensile strength (min)	ASTM D638	8.4 MPa
Ultimate elongation (min)	ASTM D638	200%
2% secant modulus (max)	ASTM D882	105 MPa
Heat ageing (168 h at 175°C)		
Tensile strength (min)	ASTM D638	7 MPa
Ultimate elongation (min)	ASTM D638	100%
Heat shock		
4 h at 225°C	MIL-I-23053/15A	Pass
Electrical		
Dielectric strength	ASTM D2671	7.9 MV/m
Volume resistivity (min)	ASTM D876	10 ¹³ ohm.cm
Flammability		
Flammability (method B)	MIL-I-23053/15A	15 sec (max)
Chemical		
Corrosion	MIL-I-23053/15A	Pass
Water absorption (max)	ASTM D570	0.5%
Specific gravity (max)	ASTM D1505	1.4
Fungus resistance	ASTM G21	≤ 1
Fluid resistance		
(24 h at room temperature)	MIL-I-81765/1A	
De-icing fluid (MIL-A-8243)		
Hydraulic fluid (MIL-H-5606)		
JP8 - Fuel (MIL-T-83133)		
Lubricating oil (MIL-L-7808)		
Lubricating oil (MIL-L-23699)		
5% NaCl (O-S-1926)		
After immersion in the above fluids:		
Tensile strength (min)	ASTM D638	5 Mpa
Elongation (min)	ASTM D638	100%

Specifications

Type	Raychem
HF	RW 2023
S-1305	RW 2020
S-1297	RW 2019

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