

- Excellent thick-wall insulation and abrasion protection
- Expansion ratios as high as 3:1
- Available in flame retarded material

BSTS/BSTS-FR

General purpose heat-shrinkable tubing

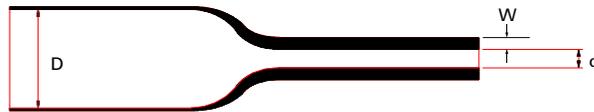
Raychem

General Purpose tubing (BSTS) and flame retarded tubing (BSTS-FR) provide enhanced protection under adverse environmental conditions. BSTS tubing is thermally stabilised, modified polyolefin heat-shrinkable tubing. It has excellent electrical

properties and is highly resistant to moisture, fungus and weathering. Its expansion ratio (proportion of expanded diameter to fully recovered diameter) can be as high as three to one. BSTS tubing is supplied without factory-applied sealant or adhesive. The tubing

can be used with S-1278/S-1305 tape sealant or S-1297 adhesive tape to provide a seal in non-pressurised applications. The tubing is easily removed by applying a small amount of heat to it, then slitting it with a knife and peeling it away with a pair of pliers.

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	
7.7	(0.3)	2.6	(0.1)	1.5	(0.06)	BSTS-03
10.2	(0.4)	3.9	(0.15)	1.5	(0.06)	BSTS-04
19.1	(0.75)	5.6	(0.22)	1.5	(0.06)	BSTS-07M
19.1	(0.75)	5.6	(0.22)	2.4	(0.09)	BSTS-07
27.9	(1.1)	9.5	(0.38)	2.7	(0.11)	BSTS-11M
27.9	(1.1)	9.5	(0.38)	3.0	(0.12)	BSTS-11
33.1	(1.3)	9.6	(0.38)	2.7	(0.11)	BSTS-13M
33.1	(1.3)	9.6	(0.38)	3.0	(0.12)	BSTS-13
43.2	(1.7)	12.7	(0.5)	3.0	(0.12)	BSTS-17M
43.2	(1.7)	12.7	(0.5)	3.6	(0.14)	BSTS-17
50.8	(2.0)	19.1	(0.75)	3.0	(0.12)	BSTS-20M
50.8	(2.0)	19.1	(0.75)	3.9	(0.15)	BSTS-20
68.6	(2.7)	22.9	(0.9)	3.9	(0.15)	BSTS-27
76.2	(3.0)	31.8	(1.25)	3.9	(0.15)	BSTS-30
88.9	(3.5)	31.8	(1.25)	3.9	(0.15)	BSTS-35 Available in 4FT (1.2m) length only
101.6	(4.0)	44.5	(1.75)	3.9	(0.15)	BSTS-40
114.3	(4.5)	44.5	(1.75)	3.9	(0.15)	BSTS-45 Available in 4FT (1.2m) length only

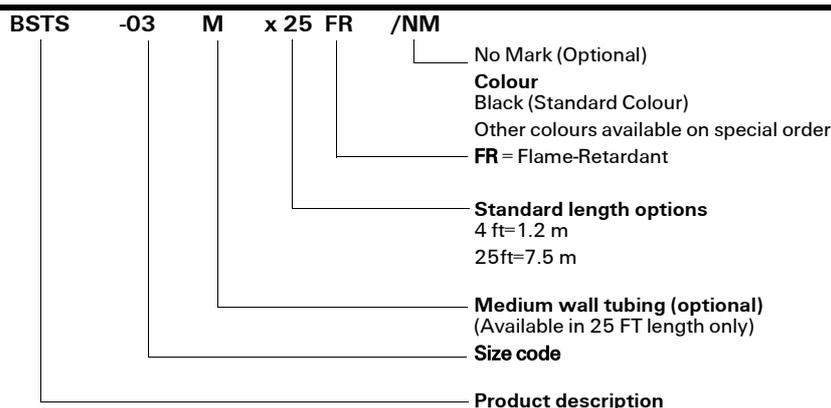
*'M' suffix denotes medium wall availability.

Adhesive/Sealant Descriptions:

S1297	General purpose hot melt adhesive tape (supplied separately)
S1278	Non flame retarded sealant tape (supplied separately)
S1305	Flame retarded sealant tape (supplied separately)

BSTS/BSTS-FR

Ordering example:



Temperature rating

Operating temperature range:	-55°C to +90°C
Minimum recovery temperature:	+120°C

Performance

BSTS is a black, crosslinked, polyolefin-based material. BSTS-FR is flame retarded and heat resistant.

	Test method	BSTS-FR	BSTS
Mechanical			
Tensile strength (min)	ASTM D638	8.4 MPa	8.4 MPa
Ultimate elongation (min)	ASTM D638	200%	200%
2% secant modulus (max)	ASTM D882	172 MPa	
Heat ageing			
	ASTM D2671, D412	(168 h at 175°C)	(168 h at 150°C)
Tensile strength (min)	ASTM D638	7 MPa	7 MPa
Ultimate elongation (min)	ASTM D638	100%	100%
Heat shock			
4 h at 225°C	MIL-I-23053/15A	Pass	Pass
Low temperature flexibility			
4 h at -55°C	MIL-I-23053/15A	Pass	Pass
Electrical			
Dielectric strength	ASTM D2671	7.9 MV/m	7.9 MV/m
Volume resistivity (min)	ASTM D876	10 ¹³ ohm.cm	10 ¹³ ohm.cm
Flammability			
Flammability (method B)	MIL-I-23053/15A	15 secs (max)	N/A
Chemical			
Corrosion	MIL-I-23053/15A	Pass	Pass
Water absorption (max)	ASTM D570	0.5%	0.5%
Specific gravity (max)	ASTM D1505	1.5	1.1
Fungus resistance	ASTM G21	1 or less	N/A
Fluid resistance			
(24 h at room temperature)			
De-icing fluid (MIL-A-8243)			
Hydraulic fluid (MIL-H-5606)			
JP8 (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	5 MPa

BSTS/BSTS-FR

Specifications

Type	Raychem
BSTS	RW 2017
BSTS-FR	RW 2017
S-1297	RW 2019
S-1278	RW 2020
S-1305	RW 2020

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