

Special Heat Shrink Parts

S13 Low Vacuum Outgassing and Radiation Resistance Heat Shrink Tube

Introduction

Flexible cross-linked modified polyolefin heat shrink tube, with radiation resistance, low outgassing in vacuum, flame-retardant. Used for protecting components and connections in military and aerospace equipment, effectively achieving radiation resistance and preventing small molecule release and weight loss in low vacuum environments.

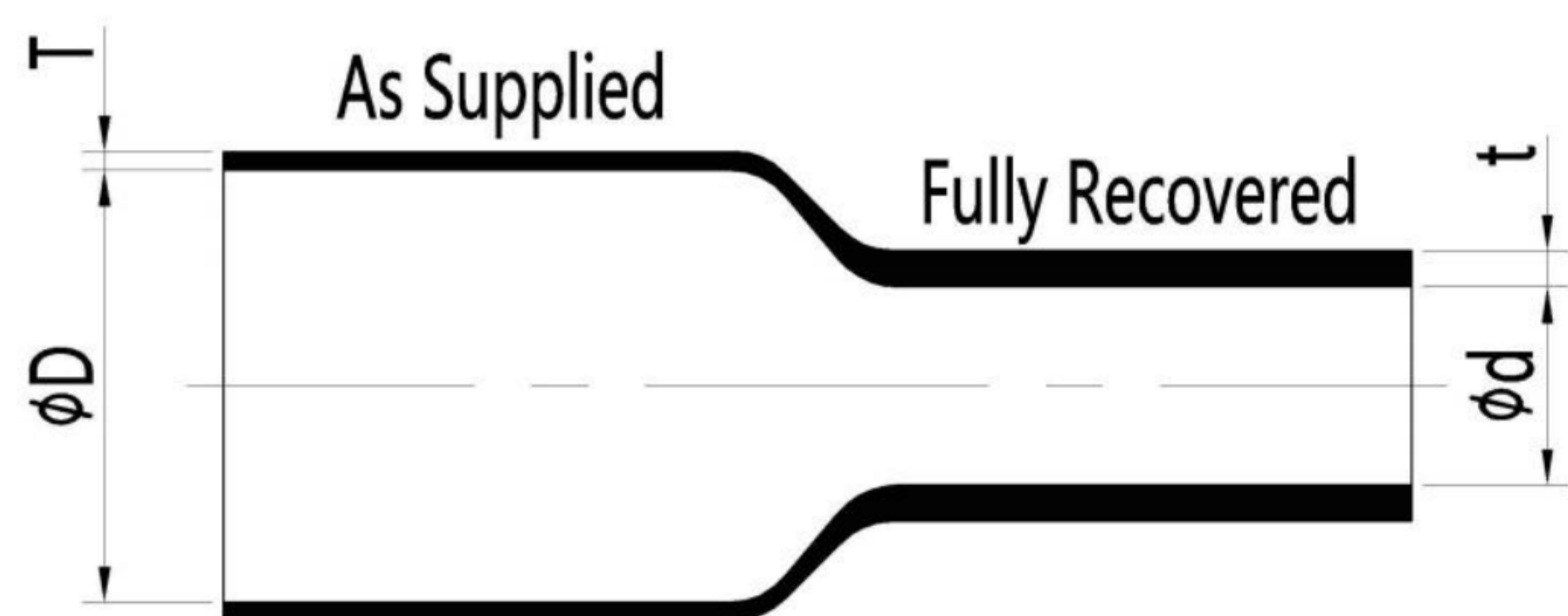
Features

- Operating temperature: -55 to 135°C
- Shrink ratio: 2:1
- Minimum full recovery temperature: 125°C
- Compliant Standard GJB 1217A-2009

Dimension

Part No. S13	As supplied(mm)		After recovered (mm)		Standard Length (m)
	Inner diameter	Wall thickness	Inner diameter	Wall thickness	
	D (min.)	T	d (max.)	t	
1.5/0.8	1.5	0.15±0.10	0.8	0.30±0.08	200
2.4/1.2	2.4	0.15±0.10	1.2	0.30±0.08	200
3.2/1.6	3.2	0.15±0.10	1.6	0.30±0.08	200
4.8/2.4	4.8	0.15±0.10	2.4	0.30±0.08	200
6.4/3.2	6.4	0.20±0.10	3.2	0.40±0.08	200
9.5/4.8	9.5	0.25±0.10	4.8	0.50±0.08	100
12.7/6.4	12.7	0.30±0.10	6.4	0.60±0.08	100
19.1/9.5	19.1	0.35±0.10	9.5	0.70±0.08	100
25.4/12.7	25.4	0.40±0.12	12.7	0.80±0.12	50
31.8/15.9	31.8	0.45±0.12	15.9	0.90±0.12	50
38.1/19.1	38.1	0.50±0.15	19.1	1.00±0.15	50
50.8/25.4	50.8	0.55±0.15	25.4	1.10±0.15	50

Ordering Note: Please order according to "model-specification-color", such as S13-9.5/4.8-0
Color code: Black (-0), White (-9), Clear (-X)



Technical Data (GJB 1217A-2009)

Property	Test Method	Requirement
Longitudinal change	--	-5%~5%
Restricted Shrinkage	175°C/30min	No cracking
Water absorption	23°C/24h	≤0.5%
Tensile Strength	500mm/min	≥10.4MPa
Ultimate Elongation	500mm/min	≥200%
Heat shock	250°C/4h	No cracking, dripping or flowing
Heat Aging	175°C/168h	
Tensile Strength		≥70% value before test
Ultimate Elongation		≥100%
Dielectric strength	--	≥19.7kV/mm
Dielectric withstand	AC 2500V, 60s	No breakdown
Volume resistivity	--	≥1.0×10 ¹⁴ Ω·cm
Fluid resistance	23°C/24h	
Tensile Strength		≥70% value before test
Dielectric strength		≥100%
Flammability (colors only)	--	≤60S burning duration
Copper corrosion	175°C/16h	No Corrosion
Low-temperature flexibility	-55°C/4h	No Cracking
Thermal cycling	-55°C/135°C	
Tensile Strength	/10 cycles	≥70% value before test
Ultimate Elongation		≥100%
Salt spray test	GJB 150.11	
Tensile Strength		≥70% value before test
Ultimate Elongation		≥100%
Damp-heat test	GJB 150.9	
Tensile Strength		≥70% value before test
Ultimate Elongation		≥100%
Fungus Resistance	GJB 150.10	No worse than rating 1
Vacuum Outgassing	GJB 1217A-2009 Method 4001	TML≤1%,CVCM≤0.1%
Radiation Resistance	GJB 178A Method 109	The irradiation dose is 200krad(Si), the surface is not cracked, damaged or brittle