

# HEAT-SHRINKABLE TUBING

## HTS-W3NH (3x)

SUMITUBE®, Made of Polyolefin, Inside adhesive, Flexible, Halogen free, EN45545



### Highlights

- Operating temperature - 40 °C to 105 °C
- Halogen free and flame retardant
- Shrink temperature 150 °C
- Low smoke index
- High shrink rate 3:1
- RoHS and REACH conform
- Approvals: LUL (London Underground), EN 45545-2 conform

### Dimensions

Art.-No.	Before Shrinkage (mm)		After Shrinkage (mm)		Standard Packaging	
	Inch	Inner Diameter (min)	Inner Diameter (max.)	Wall Thickness (nom.)	Cut Lengths (m)	Box (m)
Z85XXX	3/1	3.20	1.00	0.95	1.20	600
Z85XXX	4.5/1.5	4.80	1.50	1.10	1.20	300
Z85XXX	6/2	6.40	2.00	1.20	1.20	300
Z85108	9/3	9.50	3.00	1.30	1.20	150
Z85109	12/4	12.7	4.00	1.40	1.20	150
Z85110	19/6	19.1	6.00	2.20	1.20	90
Z85111	24/8	24.0	8.00	2.50	1.20	90
Z85112	40/13	40.0	13.0	2.50	1.20	12
Z85113	50/19	50.0	19.0	4.00	1.20	9.6
Z85114	75/25	75.0	25.0	3.00	1.20	18
Z85115	120/45	120.0	45.0	4.00	1.20	14.4

### Technical characteristics

Property	Test	Inspection Requirements	Typical Values
Physikalisch	Longitudinal change by shrinking	SAE-AS23053, - 15%, 3%	Passed
	Tensile strength	ASTM D 638, min. 10.4 MPa	Passed
	Elongation at break	ASTM D 638, min. 200%	Passed
	Secant modulus	ASTM D 882, max. 173 MPa	Passed

Created by: VS 20.11.2020

We reserve the right to make product changes.

**RELIABLE, FLEXIBLE,  
CUSTOMER-ORIENTED**

**HEINRICH THULESIUS GMBH & CO. KG**  
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#### Technical characteristics

Property	Test	Inspection Requirements	Typical Values
Thermal	Operating temperature		-40 °C to 105 °C
	Min. Shrink Temperature	For complete shrinkage	120 °C
	Shrinkage begins at		65 °C
	Low temperature flexibility (-40 °C x 4 h)	SAE-AS23053, no cracks	Passed
	Heat shock (225°C x 4h)	SAE-AS23053, no cracking, flowing oder dripping	Passed
Chemical	Copper-glass mirror corrosion (175°C x 16 h)	SAE-AS23053, no corrosion	Passed
	Tensile strength after ageing (136 °C x 168 h)	ASTM D 638, min. 7.3 MPa	Passed
	Elongation after ageing (136 °C x 168 h)	ASTM D 638, min. 7.3 MPa	Passed
	Halogen content	NFX-70-100. BS 6853, zero	Zero
Chemical	Flammability	Japanese Railway, flame retardant	Passed
	Water absorption	ASTM F 570, max. 1.0%	Passed
	Flammability index	ASTM E 162, max. 25	Passed
	Flammability: oxygen index	BS EN ISO 4589-2 / BS 6853, min. 34	≥ 37
	Flammability: temperature index	BS 6853 / LUL E1042, Min. 300 °C / 350 °C	>350 °C, Passed
	Smoke density	EN 45545-2, max. 150	<150: : R22/HL3
	Oxygen index	EN 45545-2, min. 32	≥ 37: R22/HL3
	Toxic smoke emission	EN 45545-2, max. 0,75	<0,75: R22/HL3
	Toxic gas generation	BSS 7239, ppm limit (6 gases)	Passed
Electrical	Nominal voltage	600V	Passed
	Volume resistance	ASTM D 876, min. 10 <sup>12</sup> Ω cm	>10 <sup>13</sup> Ω cm
	Dielectric strength	ASTM D 876, min. 19.7kV/mm	Passed
Other Properties	Fluid resistance (23 °C x 24 h)	IEC 60684-3-216, min. 4 MPa (tensile strength)	≥ 6 MPa
		IEC 60684-3-216, min. 100% (elongation)	≥ 200%
	Fungus resistance	ISO 846, tensile strength. 7 MPa /elongation 200%	Passed

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**SUMITOMO  
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