Heat Shrink Tubes

NTW-H - Elastomer

1. Product Description

3M™ NTW-H is a highly flexible elastomeric tubing range. NTW-H tubes have a good resistance to a wide variety of chemicals. NTW-H tubes have a VG95343/5 Type D approval and a shrink ratio of 2:1. There is also a thin wall version of NTW-H, please see the NTW-HT datasheet.

3M Deutschland GmbH
Carl-Schurz-Str.1
41453 Neuss
Germany

Reference: AABBCC07825_1_TDS#D

Issue date 03.10.2025
Supersedes 11.06.2018

2. Typical Properties

2.1 Technical Information

Physical Properties	Value	Unit	Requirement	Test Method
Shrink ratio	Up to 2:1			
Tensile strength	12 to 24	N/mm^2	min. 12	IEC 60684-2-19
Elongation at break	350 to 650	%	min. 350	IEC 60684-2-19
Longitudinal change	-10 to 0	%	-10 to 0	IEC 60684-2-9
Concentricity supplied (total wall)	65 to 100	%	min. 65	IEC 60684-2-3
Concentricity fully recovered (outer wall)	85 to 100	%	min. 85	IEC 60684-2-3
Secant Modulus	15 to 35	N/mm^2	15 to 35	IEC 60684-2-19
Relative Density	1.34	g/cm^3	1.25 to 1.45	IEC 60684-2-4
Thermal Tests				
Continuous Operating Temperature	-75 to 150	°C		
Shrink Temperature	135 to 280	°C		
Heat Shock			4 hrs at 208 °C	IEC 60684-2-6
Tensile strength Elongation at break	8 to 24 250 to 650	N/mm^2 %	min. 8 min. 200	IEC 60684-2-19 IEC 60684-2-19
Heat Aging			168 hrs at 160 °C	IEC 60684-2-39
Tensile strength Elongation at break	10 to 24 250 to 650	N/mm^2 %	min. 10 min. 200	IEC 60684-2-19 IEC 60684-2-19
Low Temperature Flexibility	Pass		4 hrs at -75 °C No cracking after bending	IEC 60684-2-14
Copper Corrosion	Pass		No Corrosion	IEC 60684-2-33
Flammability	Pass		Method C (30s, 75 mm)	IEC 60684-2-26
Electrical Tests				
Volume resistivity	$1x10^{12}$	Ω/cm	min. 10^{11}	IEC 60684-2-23
Breakdown voltage	110	kV/cm	min. 80	IEC 60684-2-21
Chemical Tests				
Chemical Resistance: Fuel (kerosene) @ 70 °C/24 hrs. Hydraulic fluid (silicone) @ 50 °C/24 hrs. Oil (synthetic) @ 70 °C/24 hrs. Cleaning fluid (Iso propyl alcohol) @ 23 °C /24 hrs. De-icing fluids (runway / aircraft) @ 23 °C/24 hrs.	Pass	N/mm^2 /%	Tensile/Elongation >8 / >250	IEC 60684-2-36

3. User Information

3.1 Selection Guide

Part Number	Expanded ID min.(mm)	Recovered ID max.(mm)	Recovered Wall Thickness (nominal) (mm)
3.2	3.2	1.6	0.7
4.8	4.8	2.4	0.8
6.4	6.4	3.2	0.9
9.5	9.5	4.8	1.0
12.7	12.7	6.4	1.2
19.0	19.0	9.5	1.4
25.4	25.4	12.7	1.8
38.0	38.0	19.0	2.4
51.0	51.0	25.4	2.8
76.0	76.0	38.0	3.2
102.0	102.0	51.0	3.5

3.2 Agency Approvals and Self Certifications

- BWB certificate K16/99087
- VDE certificate 94972
- For RoHS information, please visit www.3M.com/RoHS

3.3 Shelf Life and Storage

This product has a 3-year shelf life from date of manufacture when stored in a humidity controlled area (-5 °C to 25 °C and <75 % relative humidity).

4 Additional Information

To request additional product information, see address below.

Important Notice

All statements, technical information and recommendations contained in this document are based upon tests or experience that 3M believes are reliable. However, many factors beyond 3M's control can affect the use and performance of a 3M product in a particular application, including the conditions under which the product is used and the time and environmental conditions in which the product is expected to perform. Since these factors are uniquely within the user's knowledge and control, it is essential that the user evaluates the 3M product to determine whether it is fit for a particular purpose and suitable for the user's method or application.

Values presented have been determined by standard test methods and are average values not meant to be used for specification purposes.

All questions of warranty and liability relating to 3M products are governed by the terms of the respective sale subject, where applicable, to the prevailing law.

3M is a trademark of the 3M Company.

3M Deutschland GmbH
Carl-Schurz-Str.1
41453 Neuss
Germany

Reference: AABBCC07825_1_TDS#D

Issue date 03.10.2025
Supersedes 11.06.2018

Template-EMD-EU-1Column Dec.2015