



# TECHNICAL DATA SHEET

## HDT-AN

<b>Base material</b>	<b>Polyolefin with hot melt adhesive</b>
<b>Color</b>	<b>Black</b>
<b>Environmental</b>	<b>Halogen free, RoHS compliant</b>

### Typical Properties

Physical	Value	Unit		Test Method
Shrink ratio	Up to 4:1			
Tensile strength	23	N/mm <sup>2</sup>	> 13	IEC 60684-2-19.1
Elongation at break	680	%	> 350	IEC 60684-2-19.2
Longitudinal change	-10 <> +0	%	- 10 <> + 5	IEC 60684-2-9
Concentricity supplied (total wall)	75	%	> 50	IEC 60684-2-3
Concentricity fully recovered (outer wall)	90	%	> 85	IEC 60684-2-3
Secant Modulus	150	N/mm <sup>2</sup>	80 <> 160	IEC 60684-2-19.4
Relative Density <sup>(1)</sup>	1.01	g/cm <sup>3</sup>	-	IEC 60684-2-4
Shore Hardness	45	Shore D	> 40	ISO 868

Thermal	Value	Unit		Test Method
Continuous Operating Temperature <sup>(1)</sup>	-55 <> 130	°C		
Shrink Temperature	135 <> 280	°C		
Heat Shock			4 hrs @ 200 °C	IEC 60684-2-6
Tensile strength	22	N/mm <sup>2</sup>	> 10	IEC 60684-2-19
Elongation at break	630	%	> 200	IEC 60684-2-19
Heat Aging			168 hrs @ 150 °C	IEC 60684-2-39
Tensile strength	20	N/mm <sup>2</sup>	> 10	IEC 60684-2-19
Elongation at break	625	%	> 200	IEC 60684-2-19
Low Temperature Flexibility	Pass		4hr @ -40 °C No cracking after bending	IEC 60684-2-14
Copper Corrosion	Pass		No corrosion	IEC 60684-2-33
Flammability <sup>(1)</sup>	N/A		Not self extinguishing	IEC 60684-2-26

Electrical	Value	Unit		Test Method
Dielectric Strength	11	kV/mm	explD 10-25 > 12 26-50 > 10 51-120 > 8 >=121 > 6	IEC 60684-2-21
Volume resistivity	4x10 <sup>12</sup>	Ω.m	10 <sup>12</sup>	IEC 60684-2-23

Chemical	Value	Unit		Test Method
Insulating oil (mineral based) @ 23 °C, 24 hrs Cleaning fluid (Iso propyl alcohol) @ 23 °C, 24 hrs Water (de-ionized) @ 85 °C, 24 hrs	pass	N/mm <sup>2</sup> / %	Tensile/ elongation > 10 / > 200	IEC 60684-2-36

(1) Outer wall only

**Important note to the purchaser.**

Technical Information provided consists of typical product data and should not be used for specification purposes. Unless otherwise specified in the test method, all tests are performed at room temperature.

All statements, technical information and recommendations contained herein are based on tests 3M believes to be reliable, but their accuracy and completeness are not guaranteed. The user shall be responsible for determining the suitability of the products for his particular application. To discuss your application requirements please contact your representative



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Product Guide - Table 1 tube sizes and wall thicknesses in accordance to DIN 47640

ID [mm]		Total Recovered Wall thickness (nominal) [mm]	Tube Recovered Wall Thickness (nominal) [mm]	Adhesive Recovered Wall Thickness (nominal) [mm]
Supplied min.	Recovered max.			
12*	3*	2.5	2.0	0.5
15	4	3.5	3.0	0.5
22	6	3.5	3.0	0.5
33	8	4.8	4.0	0.8
43	12	5.5	4.7	0.8
55	15	5.5	4.7	0.8
65	16	5.5	4.7	0.8
70	21	5.5	4.7	0.8
85	25	5.5	4.7	0.8
105	26	5.5	4.7	0.8
130	36	5.5	4.7	0.8

\* Size not in accordance to DIN 47640

### Storage Conditions

Temperature: min. -50 °C  
max. +50 °C

Moisture: max. 75 %

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