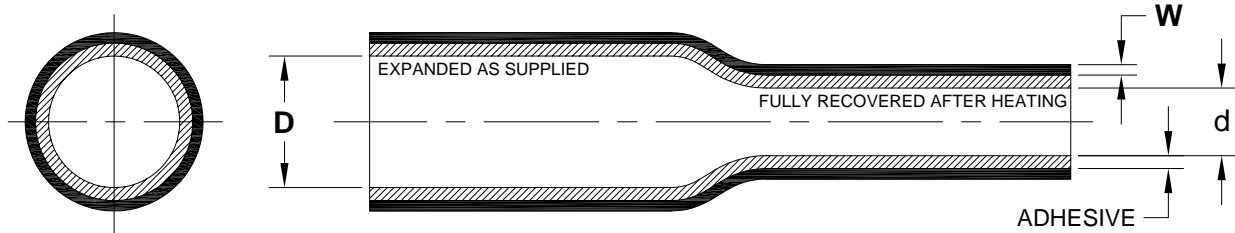


## HRHT (High Ratio Heat-Shrink Tubing)



**Table of Dimensions, inch (mm):**

Part Description	Expanded I.D. D, Min.	Recovered I.D. d, Max.	Recovered Wall W, Ref.
HRHT-1/X	0.75 (19)	0.12 (3.0)	0.155 (3.9)
HRHT-2/X	1.50 (38)	0.23 (5.8)	0.155 (3.9)
HRHT-3/X	2.00 (51)	0.36 (9.0)	0.155 (3.9)
HRHT-4/X	3.00 (76)	0.50 (12.7)	0.155 (3.9)
HRHT-5/X	4.50 (114)	0.75 (19.0)	0.155 (3.9)

**Notes:**

1. The hi-ratio tubing is heat-shrinkable and has expansion ratios as high as 6:1.
2. "X" indicates reference-recovered length in inches (e.g. for 3.0-inch length: HRHT-2/3). The tolerance shall be +/- 10% of the specified recovered length.
3. The tubing is UL recognized in sizes 1 through 4 only. The reference number is E85381(R).

**Material:**

-152, heat shrinkable, crosslinked flexible polyolefin.  
Standard factory applied hot melt adhesive is /97 or /42, as required.

**Color:** Black

**Specification Reference:**

Item	Specification
Heat-shrinkable tubing	SAE-AS81765/1
Adhesive /97, S1297	RW-2019
Adhesive /42, S1017	RT-1050/1

### CUSTOMER DRAWING

		Raychem Tubing 305 Constitution Drive, Menlo Park, CA 94025		TITLE:			
				<b>HRHT High Ratio Heat-Shrink Tubing</b>			
Unless otherwise specified dimensions are in inches. [Metric dimensions are shown in brackets]				DOCUMENT NO.:			
				<b>HRHT-1thru5/X</b>			
Tyco Electronics reserves the right to amend this drawing at any time. Users should evaluate the suitability of the product for their application.				REV:			
				<b>C</b>			
DRAWN BY:		CAGE CODE:	Org. Date:	File:	DCR NO.:	SIZE	SHEET:
U. Nguyen		06090	5/28/09	HRHT-1thru5X.doc	R090640	A	1 of 2

**Table 2: Properties**

	Property	Performance	Test Method
<b>Physical</b>	Tensile Strength	1200 psi (8.3 Mpa) minimum	ASTM D-412
	Ultimate Elongation	250% minimum	ASTM D-412
	Specific Gravity	1.4 maximum	ASTM D-792
	Water Absorption	0.5% maximum	ASTM D-570 A
	Hardness	35 ± 5 Shore D	ASTM D-2240
	Flammability	Pass	ASTM D-635
	Corrosion Resistance	Pass	MIL-I-81765
	Low Temperature Flexibility 4 hours at -67 ± 2°F (-55 ± 1°C)	Pass	MIL-I-81765
	Heat Resistance 168 hours at 347± 2°F (175 ± 1°C)	Ultimate elongation, 200% minimum Tensile strength, 1000 psi (6.9 Mpa) minimum	MIL-I-81765
	Heat Shock 4 hours at 437 ± 5°F (225 ± 2°C)	No cracking, dripping or flowing	MIL-I-81765
<b>Elastic Memory</b>		275% minimum expansion to 4 inch (10 cm) of a fully recovered test specimen and 93% recovery of expanded specimen after oven conditioning for 1 minute at 302 ± 4°F (150 ± 2°C)	
<b>Electrical</b>	Dielectric Strength	200 V/mil (7880 V/mm) minimum	ASTM D-149
	Volume Resistivity	10 <sup>12</sup> ohm-cm minimum	ASTM D-257
<b>Chemical Fluid Resistance</b>		Ultimate elongation, 200% minimum Tensile strength, 750 psi (5.2 Mpa) minimum	MIL-I-81765
<b>Operating Temperature</b>		-131 to + 275°F (-55 to +135° C) (without adhesive)	

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