HRHF/HRNF/HRSR

High-Ratio, Heat-Shrinkable Tubing

Product Facts

- **Offers toughness and durability**
- **Provides excellent insulation and abrasion protection**
- **Is available in flame-retardant material**
- **Shrinks to fit (5.6:1)**
- **FR callouts meet all of the requirements of AMS-DTL-23053/15*, except for some of the tubing sizes, which do not meet the exact recovered wall thickness requirements**
- **HRHF and HRSR have the following agency approvals:**
  - **ABS (American Bureau of Shipping)**
  - **Lloyd's (Lloyd's Register of Shipping**
- **RoHS compliant**



Applications

High-ratio (HR) heat-shrinkable tubing, with expansion ratios as high as 5.6 to 1, is designed to accommodate large size differences between cables and cable connectors and backshells, thus simplifying repair of damaged cable. High-ratio tubing is available in semirigid flame-retardant (SR), standard (NF), or high-flex flame-retardant (HF) material and with or without factory-applied sealants and adhesives. The water-proofing sealant provides environmental sealing and is watertight in wet and corrosive locations. The thermoplastic adhesive coating offers excellent strain relief and environmental sealing.

Installation

Minimum shrink temperature: 80°C [176°F]

Minimum full recovery temperature: 121°C [250°F]

Operating Temperature Range

-55°C to 110°C
[-67°F to 230°F]

Specifications/Approvals

Series	Agency	Raychem
HRSR	ABS, Lloyd's	RW-2013
HRHF	ABS, Lloyd's	RW-2013
HRNF	—	RW-2013

Available in:	Americas	Europe	Asia Pacific
	■	■	■

9-1773447-9
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Dimensions are in inches and millimeters unless otherwise specified. Values in brackets are metric equivalents.

Dimensions are shown for reference purposes only. Specifications subject to change.

USA: 1-800-522-6752
Canada: 1-905-475-6222
Mexico: 52-55-1106-0800
L. & S. America: 54-11-4733-2200

Germany: 49-6251-133-1999
China: 86-400-820-6015
Japan: 81-44-844-8013
UK: 44-800-267-666

HRHF/HRNF/HRSR (Continued)

Product Dimensions

Size†	Inside Diameter		Recovered Wall Thickness††
	Minimum Expanded as Supplied	Maximum Recovered After Heating	Nominal After Heating
HR**060	15.24 [0.600]	3.81 [0.150]	1.52 [0.060]
HR**125	31.75 [1.250]	6.10 [0.240]	1.52 [0.060]
HR**175	44.45 [1.750]	8.00 [0.315]	2.41 [0.095]
HR**200	50.80 [2.000]	9.52 [0.375]	2.67 [0.105]
HR**250	63.50 [2.500]	12.70 [0.500]	3.05 [0.120]
HR**300	76.20 [3.000]	19.05 [0.750]	3.05 [0.120]
HR**400	101.60 [4.000]	22.86 [0.900]	3.56 [0.140]

†For ** substitute HF, NF or SR for material required.
††Wall thickness will be less if tubing recovery is restricted during shrinkage.

Ordering Information

Color	Standard	Black (-0)
	Nonstandard	Clear available on request (not flame-retardant; HRHF only)
Size selection	Always order the largest size that will shrink snugly over the component to be covered. Other sizes are available upon request.	
Standard packaging	Up to 18 inch lengths maximum.*	
Ordering description	See below.	

*Cutting tolerance is ± 0.125".

Part Numbering System

HRHF - _ _ - _ / _ _

"NM" - no mark

Coating
Adhesive (/97)
Sealant (/226)
Blank for no coating

Length in inches (up to 18 inch length maximum)

"FR" - flame-retardant for SR and HF
"CL" - Clear, non-flame-retardant; HF only

Size

Product Name
HRHF - high flex
HRNF - non-flame-retardant
HRSR - semirigid

Example: HRHF-125FR-10/226-NM

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