

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 the flame-retardant material requirements of AMS-DTL-23053/15\*
- HRHF and HRSR have the following agency approvals:
  - ABS (American Bureau of Shipping)
  - DNV (Det Norske Veritas)
  - Lloyd's (Lloyd's Register of Shipping)



HRHF/HRNF/HRSR



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 waterproofing sealant provides environmental sealing and is watertight in wet and corrosive locations per USCG CGHQ-3774. 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 90°C  
[-67°F to 194°F]

Specifications/Approvals

Series	Military	Agency	Raychem
HRSR	AMS-DTL-23053/15*	ABS, DNV, Lloyd's	RW-2013
HRHF	AMS-DTL-23053/15*	ABS, DNV, Lloyd's	RW-2013
HRNF	—	—	—

\*Formerly MIL-I-23053/15 and MIL-DTL-23053/15.

Available in:	Americas	Europe	Asia Pacific
	■	■	■

HRHF/HRNF/HRSR (Continued)

Product Dimensions

Size†	Inside Diameter		Recovered Wall Thickness†† Nominal After Heating
	Minimum Expanded as Supplied	Maximum Recovered After Heating	
HR**060	15.24 [0.60]	3.81 [0.150]	1.52 [0.060]
HR**125	31.75 [1.25]	5.59 [0.220]	1.52 [0.060]
HR**175	44.45 [1.75]	8.00 [0.315]	2.41 [0.095]
HR**200	50.80 [2.00]	9.52 [0.375]	2.67 [0.105]
HR**250	63.50 [2.50]	12.70 [0.500]	3.05 [0.120]
HR**300	76.20 [3.00]	19.05 [0.750]	3.05 [0.120]
HR**400	101.60 [4.00]	22.86 [0.900]	3.56 [0.140]

†For \*\* substitute HF, NF or SR for material required. Add FR to end of number for flame-retardant material.

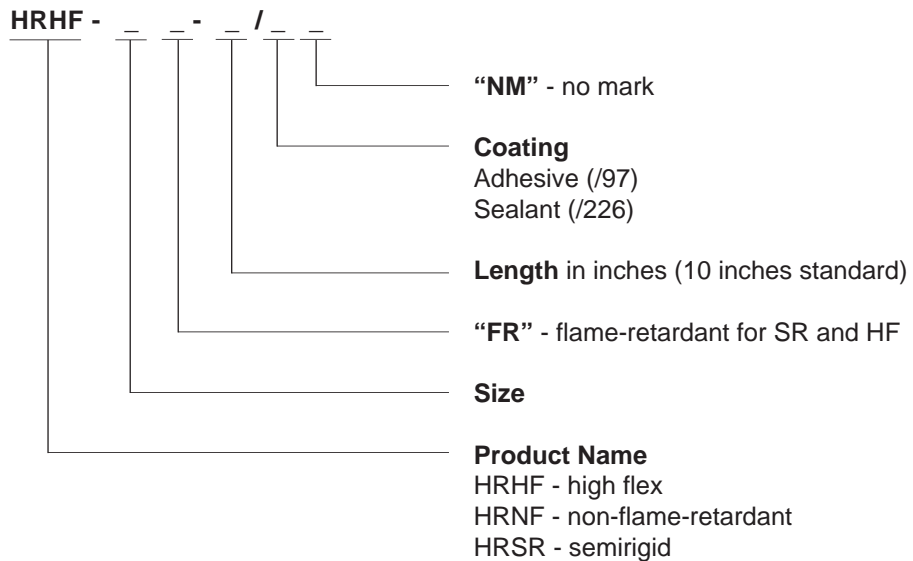
††Wall thickness will be less if tubing recovery is restricted during shrinkage.

Ordering Information

Color	Standard	Black (-0)
	Nonstandard	Clear (-X) available on request (not flame-retardant)
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	10-inch-maximum* lengths.	
Ordering description	See below.	

\*Cutting tolerance is ± .125".

Part Numbering System – Military Approved Part Numbers



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