

HR and HSR

High-ratio heat-shrinkable tubing

Fax-on-Demand: (800) 260-9099
(650) 361-6523

FAX ID	Description
2270	Data sheet

Before ordering check with factory for most current data.



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 (SR), flame-retardant (FR), 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.

Features/Benefits

- 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 MIL-DTL-23053/15A*.
- HSR-FR and HSR-HF have the following agency approvals:
 - ABS (American Bureau of Shipping)
 - DNV (Det Norske Veritas)
 - Lloyd's (Lloyd's Register of Shipping)

Specifications/Approvals

Series	Military	Agency	Raychem
HRSR	MIL-DTL-23053/15A*		Nemosyne FR
HRHF	MIL-DTL-23053/15A*		Nemosyne HRHF
HRNF			Nemosyne 90
HSR-FR		ABS, DNV, Lloyd's	RW-2013
HSR-HF		ABS, DNV, Lloyd's	RW-2013

*Formerly MIL-I-23053/15A.

Product Dimensions (mm/in)

Military part number [†]	Agency part number [†]	Inside diameter		Wall thickness (nominal)
		Minimum as supplied	Maximum recovered after heating	Recovered ^{††} (after unrestricted shrinkage)
HR**060	HSR** 15/4	15.24 (.60)	3.81 (.150)	1.52 (.060)
HR**125	HSR** 32/6	31.75 (1.25)	5.59 (.220)	1.52 (.060)
HR**175	HSR** 45/8	44.45 (1.75)	8.00 (.315)	2.41 (.095)
HR**200	HSR** 51/10	50.80 (2.00)	9.52 (.375)	2.67 (.105)
HR**250	HSR** 64/13	63.50 (2.50)	12.70 (.500)	3.05 (.120)
HR**300	HSR** 76/19	76.20 (3.00)	19.05 (.750)	3.05 (.120)
HR**400	HSR** 102/23	101.60 (4.00)	22.86 (.900)	3.56 (.140)

[†]For ** substitute HF 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.

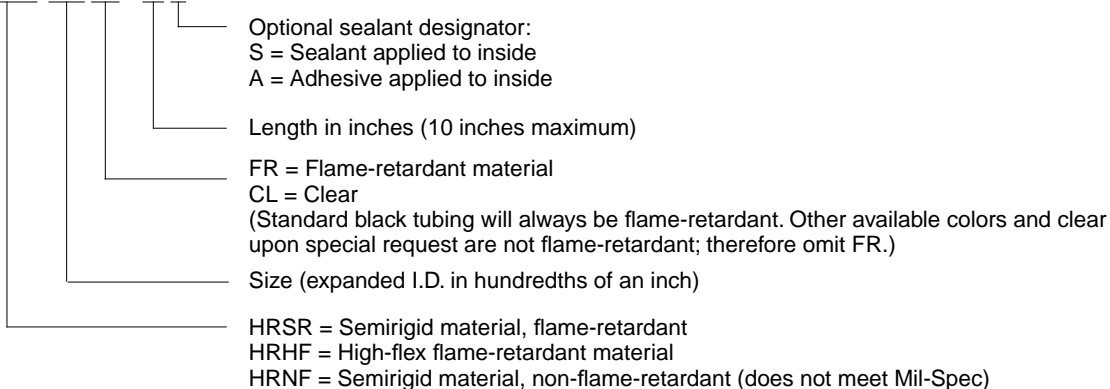
Ordering Information

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.

*Cutting tolerance is $\pm 1/8$ inch.

Military Approved Part Numbers

HRSR 125 FR - 10 A



Agency Approved Part Numbers

HSR FR 15/4

