

FLEXIBLE POLYOLEFIN, VERY THIN WALL Flame Retarded, Halogen and Antimony Free 2 : 1 Shrink Ratio

 **RoHS Compliant**

 **Lead-Free**

 **Halogen-Free**

TYPICAL FEATURES

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|---|---|
| <p>1) SUMITUBE NHR4 is a very flexible, flame-retarded, radiation-crosslinked heat shrinkable polyolefin tubing that contains no halogens, is lead-free, and contains no antimony, satisfying many requirements for environmentally friendly components.</p> <p>2) Shrink temperature is 115°C.</p> | <p>3) Sumitube NHR4 is a UL recognized component that is rated at 125° C, 300 volts. It meets the stringent flammability requirements of VW-1.</p> <p>4) Sumitube NHR4 is recommended for applications requiring high heat and flame resistance where the use of halogen containing products is not permitted. It is ideal for uses requiring very thin wall tubing where space is limited or lower weight is needed. A standard wall version, Sumitube NHR2, is also available. Please refer to the NHR2 data sheet for further information.</p> |
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STANDARD SIZES

| SIZE | INSIDE DIAMETER AS SUPPLIED (MIN) | | INSIDE DIAMETER AFTER RECOVERY (MAX) | | WALL THICKNESS AFTER RECOVERY (MIN) | |
|------------|-----------------------------------|------|--------------------------------------|------|-------------------------------------|------|
| | INCH | (MM) | INCH | (MM) | INCH | (MM) |
| 1 x 0.1 | 0.039 | 1.00 | 0.020 | 0.50 | 0.007 | 0.18 |
| 1.5 x 0.1 | 0.059 | 1.50 | 0.030 | 0.75 | 0.007 | 0.18 |
| 2 x 0.1 | 0.079 | 2.00 | 0.039 | 1.00 | 0.007 | 0.18 |
| 2.5 x 0.15 | 0.098 | 2.50 | 0.049 | 1.25 | 0.010 | 0.25 |
| 3 x 0.15 | 0.118 | 3.00 | 0.059 | 1.50 | 0.010 | 0.25 |
| 3.5 x 0.15 | 0.138 | 3.50 | 0.069 | 1.75 | 0.010 | 0.25 |
| 4 x 0.15 | 0.157 | 4.00 | 0.079 | 2.00 | 0.010 | 0.25 |
| 5 x 0.15 | 0.197 | 5.00 | 0.098 | 2.50 | 0.010 | 0.25 |
| 6 x 0.15 | 0.236 | 6.00 | 0.118 | 3.00 | 0.010 | 0.25 |
| 7 x 0.15 | 0.276 | 7.00 | 0.138 | 3.50 | 0.010 | 0.25 |
| 8 x 0.15 | 0.315 | 8.00 | 0.157 | 4.00 | 0.010 | 0.25 |
| 9 x 0.15 | 0.354 | 9.00 | 0.177 | 4.50 | 0.011 | 0.28 |
| 10 x 0.15 | 0.394 | 10.0 | 0.197 | 5.00 | 0.011 | 0.28 |

Standard Colors: Black only
Standard Package: Spooled (S)
How to Order: (Type of material) (Size) (Color) (Packaging)
Example: NHR4 3.5 Black S

NHR4 SPECIFICATION VALUES

| PROPERTY (UNITS) | TEST METHOD | REQUIREMENT |
|--|--|---|
| Physical: Tensile strength (psi) Elongation (%) Cold bend, 1hr. / -30° C Heat shock (250° C, 4 hrs.) Heat resistance (158° C, 1 week, followed by) Tensile strength (psi) Elongation (%) | UL224 UL224 UL224 UL224 UL224 UL224 | 1500 min. 200 min. no cracking no cracking 1000 min. 100 min. |
| Electrical: Dielectric voltage withstand, 1 min. 2500VAC After aging, 158° C, 1 week Dielectric voltage breakdown After aging, 158° C, 1 week Volume resistivity (ohm-cm) | UL224 UL224 UL224 | pass pass 2500 volts AC min. >50% of unaged value 1.0 X 10 ¹⁴ min. |
| Chemical: Copper stability, 158° C, 1 week % elong. Flammability Shrink temperature, nominal | UL224 UL 224 VW-1 --- | 100 min. pass 115° C |

Specification references: UL 224 125° C, 300 V, VW-1 File E48762



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