

ASH Tubing



Medium-Duty Black Heat Shrink Tubing made by 3M

DESCRIPTION

ASH Tubing offers increased flexibility in combination with excellent abrasion, corrosion and environmental resistance properties.

ASH medium-duty tubing is designed to provide reliable performance as well as excellent mechanical and environmental protection. These flame-retardant products combine the important advantages of easy handling and installation with maximum operating reliability and system protection.

This tubing comes with a factory-applied sealant. This sealant is a heat-activated thermoplastic material that remains soft and flexible over long periods under adverse environmental conditions.

During heating the sealant softens, bonds to underlying surfaces and fills small voids that might be present. When cool, the sealant forms a barrier against water, moisture, dirt and other environmental contaminants.

The tubing is rated for continuous operation at -55°C (-67°F) to 110°C (230°F). Minimum shrink temperature is 121°C (250°F).

ASH Tubing has a **3:1 shrink ratio**. When freely recovered, the tubing will be 33.3% of its as supplied diameter. The recovered wall thickness is proportionate to the degree of recovery.

ASH tubing is a flame retardant, polyolefin sleeve rated for 1 kV for electrical splices, connections, and terminations.

AGENCY APPROVALS

Meets the requirements of MIL DTL-23053/15, Class 2.

TYPICAL PROPERTIES

| Physical Properties | Typical Value |
|---|--------------------------------|
| | US units (metric) |
| Tensile Strength | 2400 psi |
| Ultimate Elongation | 475% |
| Longitudinal Change | +1, -10% |
| Secant Modulus | 14,000 psi |
| Specific Gravity | 1.28 |
| *Heat Aging 7 Days @ 175°C (347°F) | Elongation 225% |
| *Heat Shock 4 hrs @ 225°C (437°F) | No dripping, cracking, flowing |
| *Low Temperature Flexibility 4 hrs. @ -55°C (-67°F) | No cracking |
| Flammability | Self-extinguish |

*Outer wall only.

| Electrical Properties | Typical Value |
|-----------------------|-------------------------|
| | US units (metric) |
| Dielectric Strength | 500 V/mil (60 mils) |
| Volume Resistivity | 10 ¹⁴ ohm-cm |

| Chemical Properties | Typical Value |
|---------------------|-------------------|
| | US units (metric) |
| Corrosion Effect | Non-corrosive |
| Solvent Resistance | |
| Tensile Strength | 1500 psi |
| Dielectric Strength | 200 v/mil |
| Water Absorption | 0.02% |
| Fungus Resistance | Non-nutrient |

STANDARD SIZES

| Part Number | Cable Range | Expanded I.D. (Minimum) in. (mm) | Recovered I.D. (Minimum) in. (mm) | Recovered Outer Wall Thickness (Nominal) in. (mm) | Length in. | Color |
|-------------|----------------|--|---|--|---------------|-------|
| ASH412 | #12 - #6 AWG | 0.40 (10,2) | 0.15 (3,8) | 0.09 (2,3) | 12 | Black |
| ASH424 | #12 - #6 AWG | 0.40 (10,2) | 0.15 (3,8) | 0.09 (2,3) | 24 | Black |
| ASH448 | #12 - #6 AWG | 0.40 (10,2) | 0.15 (3,8) | 0.09 (2,3) | 14 | Black |
| ASH84 | #8 - #3 AWG | 0.80 (20,3) | 0.22 (5,6) | 0.10 (2,5) | 4 | Black |
| ASH86 | #8 - #3 AWG | 0.80 (20,3) | 0.22 (5,6) | 0.10 (2,5) | 6 | Black |
| ASH812 | #8 - #3 AWG | 0.80 (20,3) | 0.22 (5,6) | 0.10 (2,5) | 12 | Black |
| ASH824 | #8 - #3 AWG | 0.80 (20,3) | 0.22 (5,6) | 0.10 (2,5) | 24 | Black |
| ASH848 | #8 - #3 AWG | 0.80 (20,3) | 0.22 (5,6) | 0.10 (2,5) | 48 | Black |
| ASH116 | #2 - 2/0 AWG | 1.10 (27,9) | 0.37 (9,4) | 0.10 (2,5) | 6 | Black |
| ASH118 | #2 - 2/0 AWG | 1.10 (27,9) | 0.37 (9,4) | 0.10 (2,5) | 8 | Black |
| ASH1112 | #2 - 2/0 AWG | 1.10 (27,9) | 0.37 (9,4) | 0.10 (2,5) | 12 | Black |
| ASH1124 | #2 - 2/0 AWG | 1.10 (27,9) | 0.37 (9,4) | 0.10 (2,5) | 24 | Black |
| ASH1148 | #2 - 2/0 AWG | 1.10 (27,9) | 0.37 (9,4) | 0.10 (2,5) | 48 | Black |
| ASH1348 | #1 - 4/0 AWG | 1.30 (33,0) | 0.43 (10,9) | 0.10 (2,5) | 48 | Black |
| ASH1548 | 1/0 - 250 MCM | 1.50 (38,1) | 0.50 (12,7) | 0.10 (2,5) | 48 | Black |
| ASH1748 | 4/0 - 400 MCM | 1.70 (43,2) | 0.60 (15,2) | 0.10 (2,5) | 48 | Black |
| ASH2048 | 300 - 500 MCM | 2.00 (50,8) | 0.75 (19,1) | 0.12 (3,0) | 48 | Black |
| ASH3048 | 600 - 1250 MCM | 3.00 (76,2) | 1.00 (25,4) | 0.15 (3,8) | 48 | Black |