



# DUNBAR-DC-M321A

3:1 SHRINK RATIO, DUAL-WALL, FLAME RETARDANT, POLYOLEFIN TUBING

## Applications

DUNBAR-DC-M321A is a flexible, high shrink ratio, flame retardant heat shrinkable polyolefin tube with an adhesive lining which flows when heated. It is suitable to seal and protect a wide variety of electrical applications, including wire splices, breakouts, and connector-to-cable transitions.

## Features

- ★ Shrink ratio: 67% or more in the radial direction, 15% or less in the axial direction
- ★ In stock for immediate shipment
- ★ Continuous operating temperature: - 55°C (-67°F) to 110°C (230°F)
- ★ Flammability: UL VW-1 (Jacket only)
- ★ Excellent electrical properties
- ★ High resistance to abrasion, chemicals and oils

## Standard

- ★ Meets the material and performance specification of AS23053/4 Class 3  
Not QPL (Mil-Spec) Approved
- ★ UL 224 (File Number: E319303)
- ★ RoHS2 & REACH Compliant

## Specification Values

| Property       |                      | Test Method         | Value                                       |                                 |
|----------------|----------------------|---------------------|---|---------------------------------|
| Physical       | Unaged               | Tensile strength    | ASTM D 638<br>Min. 1300 psi                 |                                 |
|                |                      | Elongation          | Min. 250%                                   |                                 |
|                | Fluid Resist.        | Tensile strength    | ASTM D 638<br>Min. 900 psi                  |                                 |
|                |                      | Dielectric strength | ASTM D2671<br>Min. 200 Volts/mil            |                                 |
|                | Heat shock           |                     | 250°C/4 hrs                                 | No cracks, flowing, or dripping |
|                | Low temperature flex |                     | ASTM D746                                   | No crack @-55°C                 |
| Secant Modulus |                      | ASTM 882            | Max. 25,000 psi                             |                                 |
| Electrical     | Dielectric strength  |                     | ASTM D2671<br>Min. 300 Volts/mil            |                                 |
|                | Volume resistivity   |                     | ASTM D876<br>Min. 1x10 <sup>12</sup> Ω - cm |                                 |
| Chemical       | Copper corrosion     |                     | 121°C/16hrs<br>No corrosion                 |                                 |
|                | Fungus resistance    |                     | ASTM G21<br>No growth                       |                                 |
|                | Water Absorption     |                     | ASTM D570<br>Max. 1.0%                      |                                 |
|                | Flammability         |                     | ASTM D2671<br>Pass                          |                                 |

Rev. June 2018



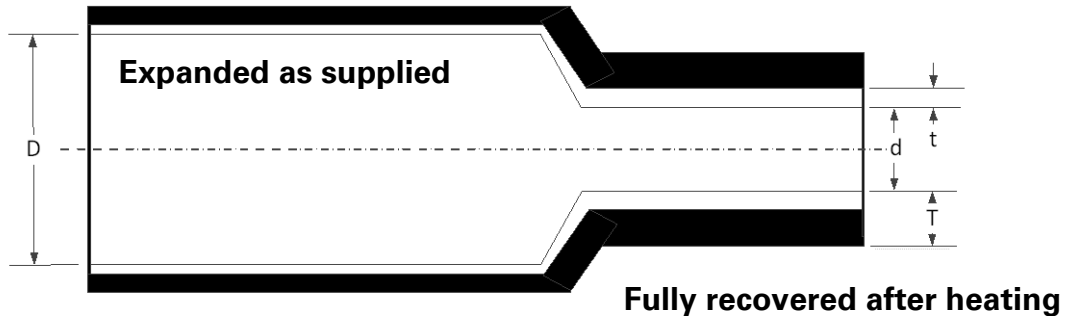
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## Product Dimensions

Minimum Shrink Temperature: 120°C

| Size   | Expanded                     |      | Recovered                    |      |                                    |     |                                       |     | Standard Length |
|--------|------------------------------|------|------------------------------|------|------------------------------------|-----|---------------------------------------|-----|-----------------|
|        | Internal Diameter (min.) (D) |      | Internal Diameter (max.) (d) |      | Total Wall Thickness (Nominal) (T) |     | Adhesive Wall Thickness (Nominal) (t) |     |                 |
|        | In.                          | mm   | In.                          | Mm   | In.                                | mm  | In.                                   | mm  |                 |
| 1/8"   | 0.120                        | 3.0  | 0.040                        | 1.0  | 0.040                              | 1.0 | 0.015                                 | 0.4 | 4               |
| 3/16"  | 0.181                        | 4.8  | 0.059                        | 1.5  | 0.040                              | 1.0 | 0.019                                 | 0.5 | 4               |
| 1/4"   | 0.240                        | 6.1  | 0.080                        | 2.0  | 0.040                              | 1.0 | 0.020                                 | 0.5 | 4               |
| 3/8"   | 0.374                        | 9.5  | 0.118                        | 3.0  | 0.047                              | 1.2 | 0.025                                 | 0.6 | 4               |
| 1/2"   | 0.470                        | 11.9 | 0.160                        | 4.1  | 0.070                              | 1.8 | 0.030                                 | 0.7 | 4               |
| 3/4"   | 0.752                        | 19.1 | 0.236                        | 6.3  | 0.078                              | 2.0 | 0.040                                 | 1.0 | 4               |
| 1"     | 0.940                        | 23.9 | 0.320                        | 8.1  | 0.100                              | 2.5 | 0.040                                 | 1.0 | 4               |
| 1-1/2" | 1.570                        | 39.9 | 0.510                        | 13.0 | 0.100                              | 2.5 | 0.040                                 | 1.0 | 4               |

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