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## Heat Shrink Tubing Dual Wall w/Adhesive, 3:1 Shrink Ratio (Includes Assortment Packs)

### **Description:**

NTE's Dual Wall Heat Shrink Tubing is flexible, polyolefin based heat-shrinkable tubing with a thermoplastic adhesive inner liner which flows when heated. After shrinkage and upon cooling, it provides a permanent flexible water proof barrier. This tubing is suitable for a wide range of applications, such as encapsulation cables, wires, electrical components and splices. The choice of high shrink ratios means more flexibility of usage such as in the covering of irregular shaped objects.

### **Standards:**

- MIL-DTL-23053/4, Class 3

### **Features:**

- Available in Black, Blue, Red, Green, Yellow, White and Clear

### **Technical Data:**

| Properties                             | Test Method   | Typical Value                                  |
|----------------------------------------|---------------|------------------------------------------------|
| <b>Physical</b>                        |               |                                                |
| Tensile Strength                       | ASTM D 638    | 10 N/mm <sup>2</sup>                           |
| Elongation at Break                    | ASTM D 638    | 300%                                           |
| Longitudinal Change                    | ASTM D 2671   | +5%, -10% Maximum                              |
| Water Absorption                       | ASTM D 570    | 0.5%                                           |
| Specific Gravity                       | ASTM D 792    | 1.3                                            |
| <b>Chemical</b>                        |               |                                                |
| Fungus Resistance                      | MIL-1-7444    | Inert                                          |
| Fluid Resistance                       | MIL-1-23053/4 | Good                                           |
| Copper Corrosion                       | ASTM D 2671 B | Good                                           |
| <b>Thermal</b>                         |               |                                                |
| Continuous Operating Temperature       |               | -55° to +125°C                                 |
| Minimum Shrink Temperature             |               | > +110°C                                       |
| Heat Shock (4 Hours at +250°C)         | ASTM D 2671   | No Dripping, Cracking or Flowing of Outer Wall |
| Heat Aging (168 Hours at +150°C)       | ASTM D 638    | Elongation 300%                                |
| Low Temperature Flexibility (-55°C)    | ASTM D 2671 C | No Cracking                                    |
| Flammability (Outer Wall <b>ONLY</b> ) | UL 224        | Pass (Except Clear)                            |
| <b>Electrical</b>                      |               |                                                |
| Voltage Rating                         |               | 1000V                                          |
| Dielectric Strength                    | ASTM D 2671   | 15kV/mm                                        |
| Volume Resistivity                     | ASTM D 257    | 10 @ 14 ohm.cm                                 |

**NOTE: July 2018 – NTE certifies that the materials contained in this product meet the requirements of California Prop 65.**

Rev. 4-20



**Products Covered:** (Note 1)

| NTE Catalog Number |             | Size<br>(inch) | I.D. (in mm) |      | Rec. Wall<br>Thickness<br>(mm) |
|--------------------|-------------|----------------|--------------|------|--------------------------------|
| 48"                | 6"          |                | Exp.         | Rec. |                                |
| 47-23048-BK        | 47-25006-BK | 1/8            | 3.0          | 1.0  | 0.5                            |
| 47-23148-BK        | 47-25106-BK | 3/16           | 4.8          | 1.5  | 0.5                            |
| 47-23248-BK        | 47-25206-BK | 1/4            | 6.0          | 2.0  | 0.5                            |
| 47-23348-BK        | 47-25306-BK | 3/8            | 9.0          | 3.0  | 0.6                            |
| 47-23448-BK        | 47-25406-BK | 1/2            | 12.0         | 4.0  | 0.7                            |
| 47-23548-BK        | 47-25506-BK | 3/4            | 18.0         | 6.0  | 0.8                            |
| 47-23648-BK        | 47-25606-BK | 1              | 24.0         | 8.0  | 1.0                            |
| 47-23748-BK        | 47-25706-BK | 1 1/4          | 30.5         | 10.0 | 1.0                            |
| 47-23848-BK        | 47-25806-BK | 1 1/2          | 39.0         | 13.0 | 1.0                            |

Note 1. BK designates Black. For alternate colors, replace BK with:  
 BL = Blue, R = Red, G = Green, Y = Yellow, W = White, CL = Clear.

**Assorted Dual Wall Packages:**

| NTE Part No. | Color | Diameter<br>(Inches)                                                                                      | Length<br>(Inches) | Pieces | Bag/Box |
|--------------|-------|-----------------------------------------------------------------------------------------------------------|--------------------|--------|---------|
| HS-ASST-13   | Black | 1/8 (20 Pieces), 3/16 (16 Pieces),<br>1/4 (12 Pieces), 3/8 (10 Pieces),<br>1/2 (8 Pieces), 3/4 (6 Pieces) | 4                  | 72     | Box     |