



### **ATUM**

High-Shrink-Ratio, Adhesive-Lined Polyolefin Tubing

### **Product Facts**

- 3:1 and 4:1 shrink ratios allow for connector-to-cable sealing
- Tubing environmentally seals and protects components and interconnections
- Medium wall provides increased mechanical protection
- The adhesive in ATUM tubing bonds to a wide variety of plastics, rubbers, and metals, including polyethylene, aluminum, steel, and copper
- RoHS compliant



### **Applications**

Environmentally seals and protects a wide variety of electrical applications, including back end connector sealing, breakouts, and connector-to-cable transitions. High expansion ratio makes it possible to repair most damaged cable jackets without removing connectors.

#### Installation

Minimum shrink temperature: 80°C [176°F] Minimum full recovery temperature: 110°C [230°F]

### **Operating Temperature Range**

-55°C to 110°C [-67°F to 230°F]

### Specifications/Approvals

| Series | UL** <b>511</b> °     | Military                  | Raychem                                       |
|--------|-----------------------|---------------------------|---|
| ATUM   | E85381<br>600V, 110°C | AMS-DTL-23053/4,* Class 3 | RW-2063 - Black<br>RK-6024 - Colors and clear |

<sup>\*</sup>Formerly MIL-I-23053/4 and MIL-DTL-23053/4. Sizes 3/1, 6/2, 12/4, 24/8, and 40/13 only.

| Available in: | Americas | Europe | Asia Pacific |  |
|---------------|----------|--------|--------------|--|
|               |          |        |              |  |

<sup>\*\*</sup>Black only, except sizes 3/1 and 4/1.



# **RAYCHEM Tubing Products**

# ATUM (Continued)

# **Product Dimensions**

|         | Inside Diameter                 |                                    | Recovered Wall Thickness**  |  |
|---------|---------------------------------|------------------------------------|-----------------------------|--|
| Size    | Minimum Expanded<br>as Supplied | Maximum Recovered<br>After Heating | Total Wall<br>After Heating | Adhesive Wall<br>After Heating (Nominal) |
| 3:1     |                                 |                                    |                             |  |
| 3/1     | 3.0 [0.118]                     | 1.0 [0.039]                        | 1.00 ± 0.28 [0.039 ± 0.010] | 0.50 [0.020]                             |
| 4.5/1.5 | 4.5 [0.177]                     | 1.5 [0.059]                        | 1.10 ± 0.25 [0.043 ± 0.011] | 0.50 [0.020]                             |
| 6/2     | 6.0 [0.236]                     | 2.0 [0.079]                        | 1.00 ± 0.28 [0.039 ± 0.010] | 0.50 [0.020]                             |
| 9/3     | 9.0 [0.354]                     | 3.0 [0.118]                        | 1.40 ± 0.28 [0.055 ± 0.010] | 0.61 [0.024]                             |
| 12/4    | 12.0 [0.472]                    | 4.0 [0.157]                        | 1.78 ± 0.38 [0.070 ± 0.015] | 0.76 [0.030]                             |
| 19/6    | 19.0 [0.748]                    | 6.0 [0.236]                        | 2.25 ± 0.55 [0.088 ± 0.022] | 0.76 [0.030]                             |
| 24/8    | 24.0 [0.940]                    | 8.0 [0.315]                        | 2.54 ± 0.55 [0.100 ± 0.022] | 1.02 [0.040]                             |
| 40/13   | 40.0 [1.570]                    | 13.0 [0.512]                       | 2.54 ± 0.55 [0.100 ± 0.022] | 1.02 [0.040]                             |
| 4:1     |                                 |                                    |                             |  |
| 4/1     | 4.0 [0.157]                     | 1.0 [0.039]                        | 1.00 ± 0.28 [0.039 ± 0.010] | 0.50 [0.020]                             |
| 8/2     | 8.0 [0.315]                     | 2.0 [0.079]                        | 1.00 ± 0.28 [0.039 ± 0.010] | 0.50 [0.020]                             |
| 12/3    | 12.0 [0.472]                    | 3.0 [0.118]                        | 1.40 ± 0.28 [0.055 ± 0.010] | 0.61 [0.024]                             |
| 16/4    | 16.0 [0.630]                    | 4.0 [0.157]                        | 1.78 ± 0.38 [0.070 ± 0.015] | 0.76 [0.030]                             |
| 24/6    | 24.0 [0.945]                    | 6.0 [0.236]                        | 2.25 ± 0.55 [0.088 ± 0.022] | 0.76 [0.030]                             |
| 32/8    | 32.0 [1.260]                    | 8.0 [0.315]                        | 2.54 ± 0.55 [0.100 ± 0.022] | 1.02 [0.040]                             |
| 52/13   | 52.0 [2.050]                    | 13.0 [0.512]                       | 2.54 ± 0.55 [0.100 ± 0.022] | 1.02 [0.040]                             |

<sup>\*\*</sup>Wall thickness will be less if tubing recovery is restricted during shrinkage.

# **Ordering Information**

| Color                    | Standard  | Black (-0)   |
|--------------------------|---|--|
|                          | Nonstandard   | Clear in 3:1 sizes only (-X, non-flame-retardant jacket); other colors available on request. |
| Size selection           | Always order the largest size that will shrink snugly over the component to be covered. Special order sizes are available upon request. |  |
| Standard packaging***    | In 1.2-meter [4-foot] lengths or on spools.   |  |
| Ordering description**** | * Specify product name, size and color (for example, ATUM 8/2-0).   |  |

<sup>\*\*\*</sup>Only 1.2 meter [4-foot] lengths are standard in the Americas. ATUM tubing on spools is nonstandard. 
\*\*\*\*For supply to MIL spec., add -MS to ordering description.



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