

# Introducing RHW

Rugged, heavy wall RHW tubing is specifically designed for insulating, protecting and sealing electrical connections and joints in low-voltage cables. RHW is the ideal choice whenever maximum mechanical protection is required in an electrical insulation system. The material used to manufacture RHW is both halogen-free and UV resistant. It provides splice insulation thickness equal to or greater than standard wire insulation manufactured to common industry standards.

## **KEY FEATURES**

- Withstands mechanical abuse for increased product reliability
- Highly resistant to impact and abrasion
- Provides high level of strain relief when installed on splices and joints
- Resistant to chemicals, moisture and oils
- Provides a complete moisture-proof seal preventing corrosion of underlying components
- Available in sizes ranging from 12mm to 390mm as supplied to cover a wide range of cable sizes
- Adhesive liner specially formulated to seal to most common insulation materials including crosslinked polyolefin, PVC, neoprene and other elastomeric materials as well as most metals
- Easy to install with a torch or heat gun
- High shrink ratio to cover uneven substrates
- Halogen-free
- UV Resistant
- RoHS compliant

## APPLICATIONS

- Power Distribution
- Trucks and buses
- Heavy Equipment
- Rail cars and locomotives
- Shipyards
- Underground wells

## SAMPLES NOW AVAILABLE

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# ELECTRICAL

• Heavy wall provides excellent electrical insulation

## MECHANICAL

- Heavy wall withstands mechanical abuse
- Highly resistant to impact and abrasion
- · Provides high level of strain relief when installed on splices and joints

## TEMPERATURE RATING

- Full recovery temperature: 125°C [257°F]
- Operating Temperature range: -40°C to 110°C [-40°F to 230°F]

## STANDARDS AND SPECIFICATIONS

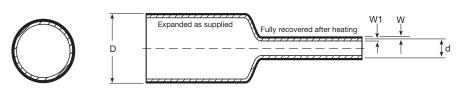
- RHW SCD
- UL File E91151 (Sizes 12/3 through 70/20 only)

## **ORDERING INFORMATION**

- Color: Black only
- Standard packaging: 1200MM lengths
- Ordering description: Specify product name, size, length, coating and color; for example, RHW-16/4-1200/ADH-0.
- Always order the largest size that will shrink snugly around the component being covered.
- Special cut lengths are available upon request.
- Marking: Tubing will be marked with product name, size and batch number.



## DIMENSIONS



| Size    | Minimum<br>Expanded I.D.<br>(D) |     | Maximum<br>Recovered I.D.<br>(d) |     | Minimum Recovered<br>Jacket Wall<br>(W minus W1) |     | Nominal Recovered<br>Adhesive Wall<br>(W1) |     |
|---------|---------------------------------|-----|----------------------------------|-----|--|-----|--|-----|
|         | in.                             | mm. | in.                              | mm. | in.  | mm. | in.  | mm. |
| 12/3    | .472                            | 12  | .118                             | 3   | .079   | 2.0 | .010                                       | .25 |
| 16/4    | .630                            | 16  | .158                             | 4   | .095   | 2.4 | .012                                       | .30 |
| 24/6    | .945                            | 24  | .236                             | 6   | .106   | 2.7 | .014                                       | .35 |
| 34/8    | 1.339                           | 34  | .315                             | 8   | .157   | 4.0 | .014                                       | .35 |
| 48/12   | 1.890                           | 48  | .472                             | 12  | .177   | 4.5 | .016                                       | .40 |
| 56/16   | 2.205                           | 56  | .630                             | 16  | .173   | 4.4 | .016                                       | .40 |
| 70/20   | 2.756                           | 70  | .787                             | 20  | .173   | 4.4 | .016                                       | .40 |
| 90/25   | 3.543                           | 90  | .984                             | 25  | .169   | 4.3 | .016                                       | .40 |
| 110/30  | 4.331                           | 110 | 1.181                            | 30  | .169   | 4.3 | .018                                       | .45 |
| 130/35  | 5.118                           | 130 | 1.378                            | 35  | .169   | 4.3 | .018                                       | .45 |
| 160/50  | 6.299                           | 169 | 1.968                            | 50  | .169   | 4.3 | .018                                       | .45 |
| 180/50  | 7.087                           | 180 | 1.968                            | 50  | .169   | 4.3 | .020                                       | .50 |
| 200/50  | 7.874                           | 200 | 1.968                            | 50  | .169   | 4.3 | .020                                       | .50 |
| 250/65  | 9.842                           | 250 | 2.559                            | 65  | .169   | 4.3 | .020                                       | .50 |
| 320/95  | 12.598                          | 320 | 3.740                            | 95  | .169   | 4.3 | .024                                       | .60 |
| 390/110 | 15.354                          | 390 | 4.331                            | 110 | .169   | 4.3 | .024                                       | .60 |

## **PRODUCT OFFERING**

| Material Description  | Material Number | Material Description  | Material Number |
|-----------------------|-----------------|-----------------------|-----------------|
| RHW-110/30-1200/ADH-0 | CX7197-000      | RHW-28/6-153/ADH-0    | CX7203-000      |
| RHW-12/3-1200/ADH-0   | CX7208-000      | RHW-34/8-1200/ADH-0   | CX6254-000      |
| RHW-130/35-1200/ADH-0 | CX7199-000      | RHW-34/8-206/ADH-0    | CX7204-000      |
| RHW-16/4-1200/ADH-0   | CX7198-000      | RHW-34/8-400/ADH/NM-0 | CX6380-000      |
| RHW-160/50-1200/ADH-0 | CX7200-000      | RHW-48/12-1200/ADH-0  | CX7205-000      |
| RHW-180/50-1200/ADH-0 | CX7201-000      | RHW-56/16-1200/ADH-0  | CX6255-000      |
| RHW-24/6-1200/ADH-0   | CX7202-000      | RHW-70/20-1200/ADH-0  | CX7206-000      |
| RHW-24/6-50/ADH-0     | CX6686-000      | RHW-90/25-1200/ADH-0  | CX7207-000      |

Note: Material numbers for larger sizes will be created as needed.

## SAMPLE INVENTORY

|   | RHW-12/3-1200/ADH-0   |
|---|-----------------------|
|   | RHW-16/4-1200/ADH-0   |
|   | RHW-24/6-1200/ADH-0   |
|   | RHW-34/8-1200/ADH-0   |
|   | RHW-48/12-1200/ADH-0  |
|   | RHW-50/16-1200/ADH-0  |
|   | RHW-70/20-1200/ADH-0  |
|   | RHW-90/25-1200/ADH-0  |
|   | RHW-110/30-1200/ADH-0 |
|   | RHW-130/35-1200/ADH-0 |
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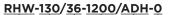
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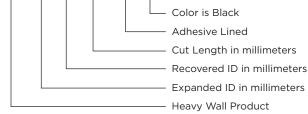
#### **RMW PROPERTY REQUIREMENTS**

| Property  | Unit          | Requirement                           | Test Method          |
|---|---------------|---------------------------------------|----------------------|
| Dimensions  | Inch (mm)     | Table 1                               | ASTM D2671           |
| Tensile Strength  | psi (MPa)     | 1750 minimum (12)                     | ASTM D2671           |
| Ultimate Elongation   | Percent       | 350 minimum                           | ASTM D2671           |
| Longitudinal Change   | Percent       | +5 to -15 maximum                     | ASTM D2671           |
| Specific Gravity  |               | 1.2 maximum                           | ASTM D792            |
| Hardness  | Shore D       | 40 - 60                               | ASTM D2240           |
| Low Temperature Flexibility<br>4 hrs @ -40°C                    |               | No cracking                           | ASTM D2671           |
| Heat Resistance 168 h @150°C<br>followed by Ultimate Elongation | Percent       | 350 minimum                           | ASTM D2671           |
| Fungus Growth   |               | Rating of 1 or less                   | ASTM G21             |
| ELECTRICAL  |               |                                       |                      |
| Dielectric Strength   | V/mil (kV/cm) | 300 minimum (120)                     | ASTM D149            |
| Volume Resistivity  | Ohm-cm        | 1 X 10 <sup>12</sup> minimum          | ASTM D257            |
| CHEMICAL  |               |                                       |                      |
| Fluid Resistance  |               |                                       |                      |
| 168 hrs @ 23°C  |               |                                       |                      |
| Immersion in VDE 0370 oil                                       |               |                                       |                      |
| followed by tests for:  |               |                                       |                      |
| Tensile Strength  | psi           | 1450 minimum (10)                     | ASTM D2671           |
| Ultimate Elongation   | Percent       | 300 minimum                           |                      |
| Corrosive Effect  |               | Noncorrosive                          | ASTM D2671. Proc. A  |
| 16 hrs @ 150°C  |               | I I I I I I I I I I I I I I I I I I I | A3111 D2071, FIOC. A |
| Water Absorption  | Percent       | 0.50 maximum                          | ASTM D570            |
| 24 hrs @ 23°C   | reicent       |                                       | A3111 D370           |

#### **RMW & RHW ORDERING DESCRIPTION**

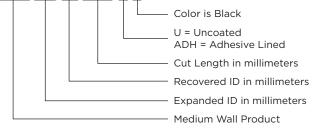
#### Example 1:





#### Example 2:

#### RMW-160/50-1200/U-0



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