Streamline® PlumbShield® Coated Copper Tube comes coated with a layer of seamless polyethylene and is available in three different colors for specific plumbing applications: Blue = Cold Water Distribution, Red = Hot Water Distribution and Purple = Reclaim Water Distribution. Available in Type K and Type L with either hard or soft tempers, PlumbShield® provides all the performance and reliability for which Streamline Copper Tube is known but with the added advantage of high visibility, easy identification and enhanced protection by isolating the copper tube from corrosive environments.

Standard Features

- .025” (minimum) polyethylene coating is extruded onto the copper providing consistent corrosion protection
- Made to ASTM & NFPA Standards
- Continuously marked with size, specification information, manufacturing code & footage every 2 feet
- Custom products & markings available upon request
- Made in Canada

Advantages

- Eliminates the need for continuous on-site tape wrapping or sleeving, creating a savings on labor & professional looking installation
- Coated tube is suitable for direct burial in concrete slabs
- Compatible with standard solder fittings & brazing techniques (alternative joining systems must comply to manufacturer’s specs)
- Manufactured to reduce work hardening & stress corrosion cracking
- Provides protection against galvanic reaction

Copper (tube or fitting) UNS C122000 has been evaluated by NSF International to NSF/ANSI 61 for use in drinking water supplies of pH 6.5 and above. Drinking water supplies that are less than pH 6.5 may require corrosion control to limit leaching of copper into the drinking water.
Installation

1. Cut and fold back plastic cover to reveal the copper tube

2. Install solder fittings in accordance with manufacturer’s instructions and local codes

   Note: If using a blowtorch, take care to keep the flame away from the plastic cover

3. When the joint is complete and cool, replace the plastic coat and wrap the joint to give continuity of protection

   Note: Polyken #930 Tape Coating for Joints & Fittings or comparable alternative is recommended to wrap the joint.

Copper

- Streamline® copper water tube (Types K & L) are manufactured to meet the chemical & mechanical properties of the applicable ASTM B88 & ANSI/NSF 61 standards
- Copper Alloy is seamless UNS C12200 grade
- Third party certified by Intertek Testing Services

Polyethylene

- Available in blue for cold water, red for hot water, & purple for reclaimed water applications
- Low density polyethylene (LDPE) resin, contains UV inhibitors
- Meets ICC requirements for minimum thickness of corrosion protective sheathing
- Operating temperatures are in the range of 0°F - 180°F with the coating
- Remaining flexible down to -40°F
- Provides adequate barrier to prevent galvanic corrosion between dissimilar metals

Polyethylene-Coated Copper Tube

<table>
<thead>
<tr>
<th>Nom Dia</th>
<th>O.D. Dia</th>
<th>TYPE K</th>
<th>TYPE L</th>
<th>COATED ACR</th>
<th>REFRIGERATION</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Lengths</td>
<td>Soft Coils</td>
<td>Lengths</td>
<td>Soft Coils</td>
</tr>
<tr>
<td>1/4&quot;</td>
<td>3/8&quot;</td>
<td>-</td>
<td>60 ft., 100 ft.</td>
<td>-</td>
<td>60 ft., 100 ft.</td>
</tr>
<tr>
<td>3/8&quot;</td>
<td>1/2&quot;</td>
<td>-</td>
<td>60 ft., 100 ft.</td>
<td>-</td>
<td>60 ft., 100 ft.</td>
</tr>
<tr>
<td>1/2&quot;</td>
<td>5/8&quot;</td>
<td>20 ft.</td>
<td>60 ft., 100 ft.</td>
<td>20 ft.</td>
<td>60 ft., 100 ft.</td>
</tr>
<tr>
<td>5/8&quot;</td>
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<td>60 ft., 100 ft.</td>
<td>20 ft.</td>
<td>60 ft., 100 ft.</td>
</tr>
<tr>
<td>3/4&quot;</td>
<td>7/8&quot;</td>
<td>20 ft.</td>
<td>60 ft., 100 ft.</td>
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<td>60 ft., 100 ft.</td>
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<tr>
<td>1&quot;</td>
<td>1-1/8&quot;</td>
<td>20 ft.</td>
<td>60 ft., 100 ft.</td>
<td>20 ft.</td>
<td>60 ft., 100 ft.</td>
</tr>
<tr>
<td>1-1/4&quot;</td>
<td>1-3/8&quot;</td>
<td>20 ft.</td>
<td>60 ft., 100 ft.</td>
<td>20 ft.</td>
<td>60 ft., 100 ft.</td>
</tr>
<tr>
<td>1-1/2&quot;</td>
<td>1-5/8&quot;</td>
<td>20 ft.</td>
<td>-</td>
<td>20 ft.</td>
<td>-</td>
</tr>
<tr>
<td>2&quot;</td>
<td>2-1/8&quot;</td>
<td>20 ft.</td>
<td>-</td>
<td>20 ft.</td>
<td>-</td>
</tr>
</tbody>
</table>

*Copper and brass tubing shall not be used if the gas contains more than an average of 0.3 grains of hydrogen sulfide per 100 standard cubic feet of gas (0.7 miligrams per 100 liters)
The following are the three elements that cover the language needed for engineering specifications to allow the use of PlumbShield in potable and non-potable water applications.

Part 1 – General

1.1 Summary
   A. PlumbShield® copper tube provides protection against corrosive environments and abrasive damage through a .025” minimum wall thickness of Polyethylene LDPE resin.
   B. PlumbShield copper tube is continuously marked with size, specification information, manufacturing code and footage every two feet.

Part 2 – Materials

2.1 Materials General
   A. All material applicable to the production of PlumbShield copper tube meets ASTM B88 and ANSI/NSF 61 standards

2.2 OilShield Material
   A. Copper Tube
      1. Color to establish use with potable and non-potable water applications.
         a. Red Coating is for hot potable water.
         b. Blue Coating is for cold potable water.
         c. Purple Coating is for reclaimed non-potable water.
      2. Coating is a low density polyethylene LDPE resin which enhances common corrosion protection associated with standard petrochemical production and distribution environments.
      3. Contains UV inhibitors to minimize derogation if exposed to violate light.
      4. Extruded seamlessly onto copper tubing with minimum wall thickness of .025”.
      5. Operating temperature is in the range of 0°F - 180°F.
      6. Polyethylene coating will remaining flexible down to -40°F.
      7. Provides an adequate barrier between dissimilar metals to prevent galvanic corrosion.

Part 3 – Installation

3.1 Installation and Usage
   A. PlumbShield tube should be installed and used in accordance with appropriate specifications and codes or based upon Mueller Industries technical recommendations.
Technical Information

**DOW DFDA-7059 NT 7**
Linear Low Density Polyethylene Resin

DOW DFDA-7059 NT 7 Linear Low Density Polyethylene Resin is an ethylene-butene copolymer which is supplied in pelleted form. It is generally recommended for slot cast thin film applications requiring both clarity and toughness. It is excellent in coextruded, slot cast stretch wrap. This resin is also suitable for use in drip irrigation and hose and tube applications.

**Main Characteristics**
- High clarity
- High tensile strength
- High elongation
- Good puncture resistance
- Complies with U.S. FDA 21 CFR 177.1520(c) 3.1a. Consult the regulations for complete details.

<table>
<thead>
<tr>
<th>Properties(1)</th>
<th>Test Method V</th>
<th>values (English (S.I.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melt Index: (%) at 190°C/2.16 kg, g/10 min</td>
<td>ASTM D 1238</td>
<td>2.0</td>
</tr>
<tr>
<td>Density, g/cc</td>
<td>ASTM D 792</td>
<td>.918</td>
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<tr>
<td>Film(2), 1mil (25 µm)</td>
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<td></td>
</tr>
<tr>
<td>Dart Impact(Method A), g Method A</td>
<td>ASTM D 1709</td>
<td>70</td>
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<tr>
<td>Elmendorf Tear (Method B), g M CD</td>
<td>ASTM D 1922</td>
<td>50</td>
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<tr>
<td>Ultimate Tensile, psi (MPa) M CD</td>
<td>ASTM D 882</td>
<td>.000(34)</td>
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<tr>
<td>Ultimate Elongation, % MD CD</td>
<td>ASTM D 882</td>
<td>450</td>
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<tr>
<td>Gloss, 45°</td>
<td>ASTM D 2457</td>
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<tr>
<td>Haze, %</td>
<td>ASTM D 1003</td>
<td>.5</td>
</tr>
</tbody>
</table>

**Fabrication Conditions For Cast Film:**
- Extrudable by conventional slot cast film extrusion equipment with only minor machine modifications necessary for optimum use.
- Melt Temperature: 520°F (270°C)

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(1) These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

(2) Film properties are typical of slot-cast film extruded at 520°F (270°C).
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Additional Information

North America

U.S. & Canada: 1-800-441-4369 +1-989-832-1426
Mexico: +1-800-441-4369

Latin America

Argentina: +54-11-4319-0100
Brazil: +55-11-5188-9000
Colombia: +57-1-219-6000
Mexico: +52-55-5201-4700

Europe/Middle East

1-800-3694-6367
32-3-450-2240

South Africa

+800-99-5078

Asia Pacific

+800-7776-7776
60-3-7958-3392

www.dowplastics.com

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