## Engineering Data

### Recommended Sheath Materials

<table>
<thead>
<tr>
<th>Media Being Heated</th>
<th>Element Sheath Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iron &amp; Steel</td>
<td>Made in USA</td>
</tr>
<tr>
<td>Gray Cast Iron</td>
<td></td>
</tr>
<tr>
<td>Cast Iron Ni-Resist</td>
<td></td>
</tr>
<tr>
<td>Aluminum</td>
<td></td>
</tr>
<tr>
<td>Copper</td>
<td></td>
</tr>
<tr>
<td>Lead</td>
<td></td>
</tr>
<tr>
<td>Molybdenum 400</td>
<td></td>
</tr>
<tr>
<td>Nickel 200</td>
<td></td>
</tr>
<tr>
<td>304, 321, 347 S/Sli</td>
<td></td>
</tr>
<tr>
<td>Type 29 S/Sli</td>
<td></td>
</tr>
<tr>
<td>Incoloy® 800</td>
<td></td>
</tr>
<tr>
<td>Inconel® 600</td>
<td></td>
</tr>
<tr>
<td>Titanium</td>
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<tr>
<td>Hastelloy B</td>
<td></td>
</tr>
<tr>
<td>Graphite</td>
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<tr>
<td>Teflon®</td>
<td></td>
</tr>
</tbody>
</table>

**Media Being Heated:**
- Tetrachlorethylene
- Thermolin® FR1
- 8-12 W/Sq. In. 640°F
- Thermolin Granodine®
- Tin (Molten)
- Tin - Nickel Plating
- Tin Plating - Acid
- Tin Plating - Alkaline
- Toluene
- Triod Solvent
- Trichloroethane
- Trichloroethylene
- Triethylene Glycol
- Tioxide (Pickle)
- Trisodium Phosphate
- Turco® 2623
- Turco® 4008, 4181, 4338
- Turco® Ultrasonic Solution
- Turpentine
- Ubac®
- Udelite #66
- Unichrome® CR-110
- Unichrome® 5RHS
- Urea Ammonia Liquor 48°F
- Vegetable Oil
- Vinegar
- Water, Acid Mine Containing Oxidizing Salts
- No Oxidizing Salts
- Water, Deionized
- Demineralized
- Distilled
- Potable
- Return Condensate
- Sea
- Watt’s Nickel Strike
- Whiskey and Wines
- Wood’s Nickel Strike
- Yellow Dichromate
- X-Ray Solution
- Zinc (Molten)
- Zinc Chloride
- Zinc Phosphate
- Zinc Plating Acid
- Zinc Plating Cyanide
- Zinc Sulphate
- Zincate®

### Corrosion Resistance Ratings:

- **A** = Good
- **F** = Fair
- **C** = Depends on Conditions
- **X** = Unsuitable
- **Blank** = Data Not Available

*See Key to Notes in Material Selection Guide on Page 16-12.*