**Introduction**

3590-TX No-Residue Wave Solder Flux is a low solids, non-halide rosin/resin-free flux designed to eliminate post-cleaning operations. Very effective flux activators provide superior solderability, reduced defects, and shiny solder joint formation.

3590-TX has a wide process window with excellent wetting capabilities, leaving no residue and high surface insulation resistance.

**Features**

- Eliminates the need for cleaning
- Good solderability
- Low defects
- Compatible with conformal coatings without cleaning
- Meets Bellcore specification TR-NWT-000078

**Process Recommendations**

3590-TX is best applied by ultrasonic spray. For best results, the following guidelines should be adhered to:

- In spray applications, a thin uniform flux deposition of 500–1,000 micrograms of flux solids per square inch should be applied as a starting point.
- Flux application variables, including flux deposition and uniformity, are integral factors when soldering with a no-clean chemistry. Topside board temperature should be approximately 93–104°C (200–220°F). Preheat temperatures can differ based on wave soldering equipment, fluxes, board thickness, components, and conveyor speed.

**Packaging**

- 5-gallon containers
- 55-gallon drums

**Safety**

All fluxes with low flash points should be handled with caution. Store in a dry, well ventilated area away from sparks, flames, and direct heat. Please refer to the Safety Data Sheet within the product shipment, or contact our local team to receive a copy.

**Physical Properties**

<table>
<thead>
<tr>
<th>Test</th>
<th>3590-TX</th>
<th>16-3000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Clear</td>
<td>Clear</td>
</tr>
<tr>
<td>Specific Gravity @25°C (77°F)</td>
<td>0.806</td>
<td>0.783</td>
</tr>
<tr>
<td></td>
<td>@15.5°C (60°F)</td>
<td>0.813</td>
</tr>
<tr>
<td>Acid Value</td>
<td>22.0</td>
<td>0</td>
</tr>
<tr>
<td>Solids Content</td>
<td>2.5</td>
<td>0</td>
</tr>
<tr>
<td>Flash Point (°F TCC)</td>
<td>54</td>
<td>54</td>
</tr>
<tr>
<td>J-STD-004 Flux Type</td>
<td>ORL0</td>
<td>N/A</td>
</tr>
</tbody>
</table>

All information is for reference only. Not to be used as incoming product specifications.

**Shelf Life**

The shelf life for this product is 2 years in an unopened container stored at less than 32.2°C (90°F). Shelf life for an opened container will vary depending on storage conditions, including open time, temperature, and humidity. For longest shelf life of an opened container, replace cap to reduce alcohol evaporation and store in a cool, dry environment.

**Technical Support**

Indium Corporation’s internationally experienced engineers provide in-depth technical assistance to our customers. Thoroughly knowledgeable in all facets of Materials Science as it applies to the electronics and semiconductor sectors, Technical Support Engineers provide expert advice in solder properties, alloy compatibility and selection of solder preforms, wire, ribbon, and paste. Indium Corporation’s Technical Support Engineers provide rapid response to all technical inquiries.