Trelleborg TB650 is a medium temperature, low density syntactic epoxy tooling board designed for the manufacture of accurate and stable master models and molds.

**Applications:**

TB650 can be used for the following:

- Master models.
- Lay-up tools for low and medium temperature curing epoxy prepregs.

**Features & Benefits:**

TB650 is a premium quality, market leading tooling board.

- **Excellent dimensional stability**
  Maintains shape at elevated temperatures.

- **Direct to part manufacturing**
  Suitable for use up to 120 °C.

- **High quality finish**
  Consistent high quality surface finish to achieve a premium product.

- **Low coefficient of thermal expansion**
  Predictable and accurate performance.

- **Inert surface**
  Chemically compatible with tooling prepregs.

- **Easy to use**
  Exceptionally easy to machine or hand carve, reduced sealing times.
Bonding Guidelines

Large patterns can be constructed from boards using the appropriately selected epoxy adhesive system. Trelleborg adhesive system 551A/B is recommended. The adhesive system must offer adequate pot life and be capable of meeting the mechanical and thermal properties of the tooling board.

To ensure good bonding:

- The adhesive should be applied to both surfaces (dust free) using a notched spatula.
- The surfaces should be brought together and a uniform clamping pressure applied by either mechanical or vacuum means.
- Any surplus adhesive that extrudes from bond lines after curing can be machined off.
- Bonded joints should be left to cure for 24 hours at ambient temperature for best results.

The recommended adhesive has matched characteristics to the TB650 material.

Machining Advisory

In order to avoid board distortion it is recommended that stock removal should be taken equally from opposing faces. Where this is not possible, then the board should be supported by and bonded to additional layers.

To minimize distortion when machining large flat boards, it is advisable to rough cut one face, invert the board and machine the rear face, re-invert and complete the machining. The board can be finished by the use of successively finer grades of wet and dry abrasive paper.
Machining Guidelines

The machining information provided is for guidance purposes only. It is advised that individual users should determine the appropriate speeds, feed, cutters and depths for their own specific application.

<table>
<thead>
<tr>
<th>TYPICAL PROPERTIES</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Roughing Speed</td>
<td>5,000 rpm</td>
</tr>
<tr>
<td>Roughing Feed</td>
<td>9 m/min</td>
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<tr>
<td>Cutter Type</td>
<td>40 mm Ball Nose Cutter</td>
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<tr>
<td>Step Down</td>
<td>10 mm</td>
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<tr>
<td>Step Over</td>
<td>15 mm</td>
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<tr>
<td>Finishing Speed</td>
<td>7,500 rpm</td>
</tr>
<tr>
<td>Finishing Feed</td>
<td>9 m/min</td>
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</tbody>
</table>

Contact Us

Trelleborg’s Applied Technologies division is an industry expert in delivering innovative and reliable solutions that maximize performance for our customers. Our vast range of specialized, customizable materials ensure peace of mind at every stage of your project. With reliable and efficient project management and manufacturing we endeavor to take performance to new levels by achieving your goals safely, on time and within scope.

Worldwide: +44 1706 716610
United States: +1 774 719 1402
Email: appliedtechnologies@trellborg.com