Plastic Bonder (PB)

PRODUCT DESCRIPTION
The Tru-Bond™ Plastic Bonding (PB) Series of products provide UV/Visible light cured bonds to a wide range of plastics including ABS, polycarbonate, PET, PETG, flexible vinyl, urethanes and acrylcs. The adhesive creates a flexible resilient polymer with outstanding impact resistance and flex. These products can also cure through most translucent substrates and UV blocked plastics.

PRODUCT CHARACTERISTICS
- Chemical Class: Urethane Acrylate
- Appearance (uncured): Amber Liquid
- Components: Single Requires no Mixing
- Viscosity: High

TYPICAL PROPERTIES OF UNCURED MATERIALS
- Specific gravity @25 °C: 1.03
- Viscosity @25 °C: Gel
- Non-Volatile Materials, %: >99
- VOC, %: <1
- Flashpoint, °F(°C): >171(77)
- Shelf life, months: 24
- Solubility: ketones, oxygenated solvents

TYPICAL PROPERTIES OF CURED MATERIALS
- Color: Clear
- Refractive Index, ASTM D542: 1.50
- Optical Clarity, %: >98
- Tensile strength, ASTM D882, psi(MPa): 577(4.0)
- Elongation, ASTM D882, %: 359
- Modulus of Elasticity, ASTM D882, psi(MPa): 154(1.0)
- Volume Shrinkage, %: 8.74
- Lineal Shrinkage, %: 2.1
- Water absorption, ASTM D570 (24 hrs.), %: 5.1
- Boiling Water, ASTM D570 (2 hrs.), %: 3.6
- Shore hardness: 37D
- Temperature range, °F(°C): -65(-54) to 300(149)

ADHESIVE LAP SHEAR

<table>
<thead>
<tr>
<th>Light Source</th>
<th>Irradiance (mW/cm²)</th>
<th>Fixture Time (Sec.)</th>
<th>Tack Free Time (Sec.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT100</td>
<td>20</td>
<td>&lt; 5</td>
<td>N/A</td>
</tr>
<tr>
<td>Fusion ® D bulb</td>
<td>1,000</td>
<td>&lt; 1</td>
<td>&lt; 4</td>
</tr>
<tr>
<td>Uvitrone PortaRay 400R</td>
<td>250</td>
<td>&lt; 2</td>
<td>N/A</td>
</tr>
</tbody>
</table>

DEPT OF CURE:

<table>
<thead>
<tr>
<th>Light Source</th>
<th>Irradiance (mW/cm²)</th>
<th>Exposure Time 30 Sec. Inch(mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>400 W Metal Halide Bulb</td>
<td>20</td>
<td>0.118 in(3mm)</td>
</tr>
</tbody>
</table>

PROCESSING
ITW products are easily applied by syringe dispense or specialty valve spray units. The materials cure extremely fast in bondlines, e.g. where the surfaces are not exposed to air, with UV or Visible radiation. Exposure doses range from .5 - 2 J/cm² depending on the intensity of the lamps and configuration of the assembly.

PRECAUTIONS
Please refer to the appropriate material safety data sheet (MSDS) prior to using this product.
Tru-Bond™ PB Gel
UV/Visible Light Cure Adhesive

STORAGE
Store the unopened product in a cool, dry, well ventilated location away from sources of heat. Optimal storage temperatures should range between 10 °C (50 °F) and 32 °C (90 °F). Do not expose the product to light. It may polymerize upon prolonged exposure to ambient or artificial light. Product removed from the containers during use should not be returned to original containers in order to avoid potential contamination.

CONVERSIONS
(°C x 1.8) + 32 = °F
kV/mm x 25.4 = V/mil
mm / 25.4 = inches
μm / 25.4 = mil
N x 0.225 = lb
N/mm x 5.71 = lb/in
N/mm² x 145 = psi
MPa x 145 = psi
N·m x 8.851 = lb·in
N·m x 0.738 = lb·ft
N·mm x 0.142 = oz·in
mPa·s = cP

WARRANTY
ITW will replace any material found to be defective. Because the storage, handling and application of this material are beyond our control, we can accept no liability for the results obtained.

NOTE
The following supersedes any provision in your company's forms, letters and papers. ITW makes NO WARRANTY, WHETHER EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE FOR THIS PRODUCT. No statements or recommendations contained in the product literature are to be construed as inducements to infringe any relevant patent, now or thereafter in existence. UNDER NO CIRCUMSTANCES SHALL ITW BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL OR OTHER DAMAGES FROM ALLEGED NEGLIGENCE BREACH OF WARRANTY, STRICT LIABILITY OR ANY OTHER THEORY, ARISING OUT OF THE USE OR HANDLING OF THIS PRODUCT. The sole liability of ITW for any claims arising out of the manufacture, use or sale of its products shall be to refund the buyer’s purchase price, provided such products have been demonstrated in ITW sole opinion, to justify such refund.

For technical assistance, please call:

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