



Tru-Bond™ PB Gel
 Plastic Bonder
 UV/Visible Light Cure Adhesive

Technical Data Sheet
 May 2010

PRODUCT DESCRIPTION

The Tru-Bond™ Plastic Bonding Series of products provide UV/Visible light cured bonds to a wide range of plastics including ABS, polycarbonate, PET, PETG, flexible vinyls, urethanes and acrylics. 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.

Typical Physical Properties

Uncured:

Chemical Class..... Urethane Acrylate
 Color..... Amber
 Components..... Single
 Non-Volatile materials..... 99+ %
 VOC..... <1 %
 Flashpoint..... 171 °F
 Viscosity Gel
 Specific gravity..... 1.03
 Shelf life..... 24 mos.
 Solubility..... ketones, oxygenated solvents

Cured:

Color..... Clear
 Refractive Index..... 1.50
 Optical Clarity..... >98 %
 Tensile strength..... 577 psi
 Elongation ASTM D638..... 359 %
 Modulus of Elasticity ASTM D882..... 154 psi
 Volume Shrinkage..... 8.74 %
 Lineal Shrinkage..... 2.06 %
 Water absorption ASTM D570 (24 hrs.)..... 5.1 %
 Boiling Water % ASTM D570 (2 hrs.) 3.6 %
 Shore hardness..... 37D
 Temperature range..... -65 °F to 300 °F
 Adhesive Lap Shear (Acrylic)..... 940 psi (cohesive failure)
 Adhesive Lap Shear (PETG)..... 572 psi (substrate failure)
 Adhesive Lap Shear (Polycarbonate)..... 1893 psi (substrate failure)

Fixture Time and Tack-free Time:

| Light Source | Irradiance | Fixture Time/Sec. | Tack free Time/Sec. |
|-----------------------|--------------------------|-------------------|---------------------|
| CT100 | 20 mW/cm ² | < 5 | N/A |
| Fusion® D bulb | 1,000 mW/cm ² | < 1 | < 4 |
| Uvitron PortaRay 400R | 250 mW/cm ² | < 2 | N/A |

Depth of Cure (inches, min):

| Light Source | Irradiance | Exposure Time 30 seconds |
|-------------------------|-----------------------|--------------------------|
| 400 W Metal Halide Bulb | 20 mW/cm ² | 3 mm |

PROCESSING

ITW Devcon 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 mJ/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.

Warranty:

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

Disclaimer:

All information on this data sheet is based on laboratory testing and is not intended for design purposes. ITW Devcon makes no representations or warranties of any kind concerning this data.

For technical assistance, please call 1-800-933-8266

FOR INDUSTRIAL USE ONLY

ORDERING INFORMATION:

| <u>Stock No.</u> | <u>Unit Size</u> |
|-------------------------|-------------------------|
|-------------------------|-------------------------|

| | |
|-------|---------------|
| 18210 | 25 ml Syringe |
|-------|---------------|