



Tru-Bond™ PSA 11000

Preliminary

Technical Data Sheet

UV/Visible Light Cure Adhesive

Rev01, Oct 2016

Pressure Sensitive Adhesive (PSA)

PRODUCT DESCRIPTION

The Tru-Bond™ PSA 11000 Pressure Sensitive Adhesive (PSA) is a one-part, solventless liquid that cures to a tacky adhesive when exposed to UV/Visible light. This PSA can be cured directly through clear or translucent surfaces or cured first prior to assembly. The curing first method allows for the joining of parts at some future point. This product can bond a wide range of substrates including PE, PP, PET and most plastics, metals, glass, and ceramics. It can be sprayed, roll coated, bead or brush applied.

PRODUCT CHARACTERISTICS

Chemical Class	Acrylic
Appearance(uncured)	Clear liquid
Components	Single-requires no mixing
Viscosity	Low

TYPICAL PROPERTIES OF CURED MATERIALS

Color.	Optically Clear
Water absorption, ASTM D570 (24 hrs.), %	0.53
Boiling Water, ASTM D570 (2 hrs.), %	1.20
Shore hardness	Shore A 30
Temperature Range °F(°C)	-40~250(-40~121)

TYPICAL PROPERTIES OF UNCURED MATERIAL

Specific gravity@25 °C	1.10
Viscosity@25 °C, Brookfield RV	
Spindle 2, 10 rpm, cP	11000
Flashpoint, °F(°C)	>212(100)
Non-Volatile Materials, %	>99
VOC, %	<1
Shelf life, months	24
Solubility	ketones, oxygenated solvents

Process Latitude of Tru-Bond UV PSA 11000	180 Degree Peel-PET film 300mm*25mm*0.075mm; SS304 100mm*25mm*1mm apply the adhesive on the PET film first, cure, assemble the PET film on the 304 SS, and then roll with weight (2 Kg). Dwell 7 days.							
	Dose with Fusion D bulb at 100 mW/cm ²							
PSA 11000	500 mJ/cm ²	750 mJ/cm ²	1000 mJ/cm ²	1250 mJ/cm ²	1500 mJ/cm ²	1750 mJ/cm ²	2000 mJ/cm ²	2500 mJ/cm ²
Nominal Film Thickness	Lineal Peel Strength							
	lbs/inch N/25mm	lbs/inch N/25mm	lbs/inch N/25mm	lbs/inch N/25mm	lbs/inch N/25mm	lbs/inch N/25mm	lbs/inch N/25mm	lbs/inch N/25mm
0.5 mil (12.5µm)	3 13	4 17	4 17	4 17	4 17	4 17	4 17	4 17
1.0 mil (25µm)	4 17	5 22	5 22	5 22	6 22	6 26	5 22	5 22
2.0 mil (50µm)	4 17	9 39	9 39	10 43	10 43	11 48	11 48	11 48
3.0 mil (75µm)	4 17	10 43	10 43	10 43	10 43	13 56	14 61	14 61
5.0 mil (125 µm)	5 17	13 56	14 61	14 61	15 65	15 65	14 61	14 61



Strength Development of Tru-Bond UV PSA 11000									
ASTM D330 modified 0.05mm aluminum film to Stainless Steel, 2 mil (0.050mm) adhesive film thickness. 1500 mJ/cm ² Dosage with Metal Halide lamp at 50 mW/cm ²									
15 min. room temp. 90° Peel		72 hr. room Temp. 90° Peel		72 hr. Dwell 158°F (70°C) 90° Peel		72 hr. Room Temp. Dwell 180° Peel		7 Day Dwell 90° Peel	
lbs./inch	N/25mm	lbs./inch	N/25mm	lbs./inch	N/25mm	lbs./inch	N/25mm	lbs./inch	N/25mm
4.3	19.1	3.7	16.5	8.6	38.3	10.8	48	10.6	47.2

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.

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.

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