

# Acrylobond HD

Acrylobond® HD is a two-component polyurethane designed specifically as an environmentally friendly alternative to a polyester resin used as a backing in the thermoformed acrylic and the thermoformed ABS marketplace. Excellent adhesion can be obtained on Acrylic, ABS, Acrylic/ABS co-extrusions, and Acrylic/ABS laminates.

## APPLICATIONS

- Hot Tubs
- Thermoformed Plastics

## PRODUCT ADVANTAGES

- 1:1 System by volume
- Excellent adhesion to thermoformed ABS
- Excellent adhesion to thermoformed acrylic
- Excellent sag resistance
- Fast Cycle Time
- Good HDT
- Good Impact while maintaining stiffness
- High Hardness
- Low Exotherm
- Matched Viscosities
- No roll-out when chopped glass roving is used
- Repairable
- Sandable
- Styrene free!

## CHEMICAL RESISTANCE

A: Not Recommended

B: 2 Hour Term Splash Spill

C: 8 Hour Term Splash Spill

D: 72 Hour Immersion

E: Long Term Immersion

10% Sodium Hydroxide	E
10% Sulfuric Acid	E
20% Nitric acid	E
35% Sulfuric Acid	E
50% Sodium Hydroxide	E
Acetone	B
Bleach	E
Dichloromethane	A
Diesel	E
Isopropanol	E
MEK	B
Methanol	B
Mineral Spirits	E
Motor oil	E
Toluene	E
Xylene	E

\*Values given are not intended to be used in specific preparation

## Component Properties

Color - ISO	Brown
Color - POL	Off White
Specific Gravity - 74°F, ISO	1.2 - 1.3
Specific Gravity - 74°F, POL	1.28 - 1.41
Viscosity - ASTM D-2196 - 74°F, ISO	2800 - 3800 cps
Viscosity - ASTM D-2196 - 74°F, POL	4200 - 6000 cps
Mixed Density	80 pcf

## Reactivity Profile

Ratio by Weight - ISO:POL	45:55
Ratio by Volume - ISO:POL	50:50
Gel Time - 100 gram sample, 74°F	90 - 110 Seconds

## Typical Physical Properties

Flexural Modulus - ASTM D790	580 ksi
K Factor, initial per inch - ASTM C518	0.821 sq/ft
R value, initial per inch	1.21
Hardness - ASTM D2240 - Shore D	84 Shore D
Tear Strength - ASTM D624, Die C	274 pli
Tensile Strength - ASTM D412	6500 psi
Elongation - ASTM D412	2.2 %
Izod Impact Notched - ASTM 256A	.15 ft.lb/in
Izod Impact Unnotched - ASTM 256E	1.23 ft.lb/in
Heat Distortion Temperature - ASTM D648, Method B - @ 66 psi	165 °F
Heat Distortion Temperature - ASTM D648, Method B	152 °F
UL 94 HB - Screened by Outside Lab	Pass
Glass Transition Temperature - DSC method	143.6 °F

## RECOMMENDED HANDLING INSTRUCTIONS

Isotec® International's Recommended Application and Handling Instructions

- use only in well-ventilated areas.
- wear chemically resistant rubber gloves, safety glasses, and an apron.
- avoid prolonged or repeated contact with skin.
- In case of skin contact, wipe affected area with isopropyl alcohol, followed by soap and water.
- In case of eye contact, flush eyes with water for 15 minutes and consult a physician.
- If swallowed or comes into contact with eyes, seek medical attention immediately

Acrylobond® HD POL-Component should be mixed well prior to combination with Acrylobond® HD ISO-Component. Failure to properly mix the POL -Component prior to combination with the ISO-Component could compromise the resulting physical properties of the cured Acrylobond.

Care should be taken to insure the proper ratio of ISO to POL is achieved. Mixing material at a different ratio could compromise the resulting physical properties of the cured product.

Care should be taken to avoid the introduction of moisture into either the ISO or POL component. The ISO-component will react with moisture to form CO<sub>2</sub>. This reaction will also reduce the number of reactive groups within the ISO-Component and could compromise the resulting physical properties of the cured product. Please refer to the SDS relating to the safety concerns of the unwanted introduction of moisture to the ISO-component. The ISO-component will absorb moisture. Absorbed moisture in the ISO-component will increase the number of reactive groups within the resin and could produce undesired foaming during the reaction when combined with the ISO-component. This situation could also compromise the resulting physical properties of the cured Acrylobond.

## STORAGE

Protect ISO and POL side from moisture. If the ISO side material is exposed to moisture, including moisture from the air, it will release CO<sub>2</sub> gas. If placed in a sealed container, this gas can cause a dangerous build up of pressure potentially resulting in injury or death. If the POL side is exposed to excess moisture and then applied it may cause weak or foamed material to be applied.

## SAFETY

- Refer to the product SDS for all relevant safety information.

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- Reported laboratory test results of the color stability in no way relates to the actual performance upon exposure to light sources. Since all aromatic urethanes experience color degradation upon ultraviolet light exposure, Seller shall not be liable for any damages resulting from ultraviolet light color degradation of any aromatic urethane systems manufactured or sold by Seller.
- The liability of the Seller shall not exceed the purchase price and the Buyer shall not be entitled to nor the Seller be liable for any consequential, incidental, indirect or special damages resulting in any manner from the furnishing of the product.

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