



Armor-Bond Rigid

AP-3220 A/B

70 SHORE D POLYURETHANE ADHESIVE



AP-3220 is a two-part, rigid polyurethane adhesive with a 1-1.5 minute work time. Designed to bond together many of BJB's semi-rigid and rigid polyurethane cast products, this adhesive exhibits excellent bond strength and shock absorption. Great for general purpose bonding, Automotive, Aerospace, 3D Printed Parts, Composites, Movie Special Effects, and much more. AP-3220 is available in 50ml cartridges. 50ml dispensing guns are sold separately.

- RoHS/REACH Compliant
- Excellent Adhesion
- Thixotropic Bead
- Quick Setting
- Convenient 1:1 (pbv) mix ratio
- High Impact

PHYSICAL PROPERTIES	TEST METHOD	ELEVATED TEMPERATURE CURE
Hardness, Shore D	ASTM D2240-04e1	70 ± 5
Density (g/cc)	ASTM D792-00	1.145
Cubic Inches per Pound	N/A	24.96
Color/Appearance	Visual	Translucent Pale Yellow
Dielectric Constant, 1 MHz	ASTM D150-87	2.856
Dissipation Factor, 1 MHz	ASTM D150-87	0.0179
¹ Lap Shear (psi) Aluminum to Aluminum	ASTM D1002-01	2,400
² Lap Shear (psi) Aluminum to Aluminum	ASTM D1002-01	2,800

Reported physical properties are based on test specimens cured for 24 hours at room temperature.

¹Test specimens cured 24 hours at room temperature, 77F (25C)

²Test specimens cured 4 hours at room temperature and heat cured for 16 hours at 160°F (71.1°C)

HANDLING PROPERTIES	Part A	Part B
Mix Ratio by weight	100	90
Mix Ratio by volume	100	100
Specific Gravity @ 77°F (25°C)	1.163	1.054
Color	Pale Amber	Pale Yellow
Viscosity (cps) @ 77°F (25°C) Brookfield	1,430	2,870
Mixed Viscosity (cps) @ 77°F (25°C) Brookfield	Non-Flowable	
Work Time, 10 g mass @ 77°F (25°C)	1 – 1.5 minutes	
Thin Film Set Time	10 – 15 minutes	

Properties above are typical and not for specifications.

SURFACE PREPARATION:

Abrade and clean surfaces before bonding. For best results, a chemical wipe of surfaces with a clean solvent (e.g. Acetone) works best to remove grease, dirt, or dust.

DIRECTIONS FOR CARTRIDGE USE:

- Place cartridge into the dispense gun. Before attaching the mix tip, dispense a small amount of adhesive to ensure proper flow on both sides. If there is a restriction, use a pointed object to clear any blockage. Once blockage is cleared, dispense a small amount to verify flow.
- Attach mix tip. Begin pumping the adhesive through the mix tip. It is advisable to dispense a small waste shot of material to ensure both A & B are mixed properly.
- When finished dispensing, leave the mix tip attached. Adhesive in the tip will cure, creating its own seal for storage should there be remaining adhesive in cartridge.
- Remove used mix tip when using cartridge again. Repeat steps above to dispense more adhesive.

COLOR VARIATIONS:

The color of the base material may vary slightly from batch to batch due to raw ingredients. Color variations will not affect the cured physical properties. Exposing the material to various conditions such as heat and UV light will alter the color of the cured system. Color stability is not guaranteed. This product can be pigmented, but you may see more color shift when using lighter pigments.

STORAGE:

Store ambient temperatures, 65-80°F (18-27°C). Unopened containers will have a shelf life of 3 months from date of shipment when properly stored at recommended temperatures. Purge opened containers with dry nitrogen before re-sealing.

PACKAGING	Part A	Part B
50 ml Dual Cartridge	1 oz.	0.9 oz.

SAFETY PRECAUTIONS:

Use in a well-ventilated area. Avoid contact with skin using protective gloves and protective clothing. Repeated or prolonged contact on the skin may cause an allergic reaction. Eye protection is extremely important. Always use approved safety glasses or goggles when handling this product.

IF CONTACT OCCURS:

Skin: Immediately wash with soap and water. Remove contaminated clothing and launder before reuse. It is *not* recommended to remove resin from skin with solvents. Solvents only increase contact and dry skin. Seek qualified medical attention if allergic reactions occur.

Eyes: Immediately flush with water for at least 15 minutes. Call a physician.

Ingestion: If swallowed, call a physician immediately. Remove stomach contents by gastric suction or induce vomiting only as directed by medical personnel. Never give anything by mouth to an unconscious person.

Refer to the Material Safety Data Sheet before using this product.

⚠️WARNING: This product can expose you to chemicals including Toluene, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.



Handling Guide