



SP-46 A/B

45 SHORE A

SPRAY APPLIED POLYURETHANE

PRODUCT DESCRIPTION:

SP-46 A/B is a two-component flexible polyurethane designed to provide excellent physical properties as a spray applied elastomer.

During the spray application the coating thickness builds quickly due to the thixotropic characteristics of the system. SP-46 A/B does not foam or blister either during or after application. It bonds readily to itself, as well as to other plastics, wood, metal, and foam materials.

The SP-46 A/B has an extremely low V.O.C. content. The volatile organic compounds (V.O.C.) contained in the mixed A and B components total less than 8.5 grams per liter. The SP-46 A/B has a set time (tack free) of approximately 5-10 minutes. It demolds quickly, often within 1 hour after spray-up is completed. Spraying SP-46 A/B requires two-component airless spray equipment that develops a high-pressure impingement mix/spray to obtain the best processing results. B.J.B. offers the CPE-600 Spray System specifically set-up to run this product along with the rigid spray materials designated SP-200 A/B and SP-203 A/B.

PRODUCT HIGHLIGHTS:

- ◆ Provides very rapid production of parts, composite structures, and molds.
- ◆ Good adhesion to a wide variety of substrates, most notably rigid foams and wood.
- ◆ Provides very fine detail reproduction.
- ◆ Convenient 1:1 by volume mix ratio.
- ◆ Doubles as a cup mixed patch/tear repair material
- ◆ Non-mercury

PHYSICAL PROPERTIES:

Hardness, Shore A, ASTM D-2240.....	45 ± 5
Density (g/cc), ASTM D-792.....	TBD
Color/Appearance.....	Buff Translucent
Tensile Strength, (psi), ASTM D-412	650
Elongation (%), ASTM D-412.....	750
Tear Strength, (pli) ASTM D-624	85

HANDLING PROPERTIES:

Mix Ratio (by weight):	
Part A	100 parts by weight
Part B	92 parts by weight
Mix Ratio (by volume):	
Part A	100 parts by volume
Part B	100 parts by volume
Viscosity, (cps) @ 77° F (25° C):	
Part A	TBD
Part B	TBD
Specific Gravity:	
Part A	1.10
Part B	1.02
Color:	
Part A	Yellow Translucent
Part B	Buff/Translucent

HANDLING PROPERTIES (cont'd):

Gel Time @ spray temperature ["A" side and "B" side @ 140° F (60°C)]..... 15-30 seconds
Demold Time, (1/8" thick)..... 1 hour

NOTE:

Approximate spray time to build up a 1/4" thickness on a 4 square foot panel is 2 minutes, 30 seconds time. The approximate weight of the SP-46 A/B applied 1/4" thick on a 4 square foot panel is 5.6 lbs. This panel was sprayed up using BJB's model CPE-600 Spray Equipment. The spray pressure was approximately 2500 p.s.i. Line heaters and heated hoses were set to maintain 140°F (60°C) material temperature for both A and B components. Feed tank temperature on the "A" side was 80°F (27°C) and the "B" side was 80°F (27°C). Both A and B materials were approximately 120°F (49°C) at the gunhead.

It is important to remix part B thoroughly before use, making sure the material is within a temperature range of 75° - 85°F (24° - 29°C). Continue mixing until the material is uniform in appearance.

CURING:

SP-46 A/B will fully cure at ambient temperatures in 2-3 days. Spraying against cold surfaces can prolong cure time. Best results can be achieved by pre-warming surfaces to 70°F (21°C) or higher for either part or mold making applications.

STORAGE:

Store in a cool dry place. Unopened containers will have a shelf life of 3 months from date of shipment when properly stored at room temperatures. Purge opened containers with dry nitrogen before re-sealing. Electric band heaters for material feed containers may be required during cold weather periods.

PACKAGING:

5 Gallon kits 40 lbs. A, 36.8 lbs. B
Drum kits..... 400 lbs. A, 368 lbs. B

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.

NON-WARRANTY "Except for a warranty that materials substantially comply with the data presented in Manufacturer's latest bulletin describing the product (the basis for this substantial compliance is to be determined by the standard quality control tests generally performed by Manufacturer), all materials are sold "AS IS" and without any warranty express or implied as to merchantability, fitness for a particular purpose, patent, trademark or copyright infringement, or as to any other matter. In no event shall Manufacturer's liability for damages exceed Manufacturer's sale price of the particular quantity with respect to which damages are claimed."