



V-825 A/B

RIGID 84 SHORE D POLYURETHANE CASTING SYSTEM

PRODUCT DESCRIPTION:

V-825 A/B is a rigid 84 Shore D polyurethane system that exhibits exceptional physical properties. It is a high performance material that features high heat deflection capability and a low shrink factor. V-825 is a transparent, virtually colorless casting material that allows for unrestricted tinting and precise color matching. This product is ideal for producing intrinsically colored parts requiring a non-painted finish. This product can be easily processed with meter-mix-dispense, pressure or vacuum cast equipment.

PRODUCT HIGHLIGHTS:

- Designed for vacuum or pressure casting
- Non-Mercury Based Catalyst System
- High impact rigid material
- Odorless, transparent
- Low viscosity
- Exhibits high heat distortion temperature

PHYSICAL PROPERTIES:

Hardness, Shore D ASTM D-2240.....	84 ± 2
Specific Gravity, (g/cc) cured ASTM D-792	1.20
Cubic Inches Per Pound	24.5
Color/Appearance.....	Transparent light yellow
Tensile Strength, (psi) ASTM D-638.....	10,060
Tensile Modulus, (psi) ASTM D-638.....	3.3 x 10 ⁵
Elongation, (%) ASTM D-638.....	10.5
Flexural Strength, (psi) ASTM D-790.....	13,700
Flexural Modulus, (psi) ASTM D-790.....	3.6 x 10 ⁵
Shrinkage, (in./in.) linear (12" x 1/2" x 1/2")	0.001
Izod Impact, (ft.-lb./in.) ASTM D-256.....	1.14
Heat Deflection Temperature ASTM D-648:	
@ 66 psi.....	190° ± 5°F (88°± 3°C)
@ 264 psi.....	170° ± 5°F (77°± 3°C)

Note: Reported physical properties based on elevated temperature cured test specimens.

HANDLING PROPERTIES:

Mix Ratio (by weight):	
Part A	100 parts by weight
Part B	60 parts by weight
Mix Ratio (by volume):	
Part A	100 parts by volume
Part B	66 parts by volume
Specific Gravity, (g/cc):	
Part A	1.17
Part B	1.07

HANDLING PROPERTIES (continued):

Viscosity, (cps) @ 77°F (25°C) Brookfield:	
Part A	165
Part B	725
Mixed	450
Color:	
Part A	Transparent yellow
Part B	Translucent, colorless
Work Time, (100-gram mass) @ 77°F (25°C)	6-8 minutes
Gel Time	7-9 minutes
Demold Time @ 77°F (25°C)	2-3 hours

VACUUM DE-GASSING/ DE-AIRING:

It is advisable whenever possible to evacuate entrapped air prior to casting this system. The use of de-airing agent, (BJB's AF-4), can speed the process.

POST CURING RECOMMENDED PROCEDURE:

After demolding, allow parts to further cure at room temperature for approximately 2-4 hours. It is recommended that parts be stage cured at 120°– 130°F (49°- 54°C) for 2-4 hours, followed by 4-6 hours at approximately 180°F (82°C). Support may be needed for certain configurations during this process.

NOTE:

V-825 A/B with its non-mercury catalyst system does exhibit greater sensitivity to moisture than do similar products that use mercury-containing catalysts. V-825 A/B should be stored at ambient temperature and the "A" & "B" components may require vacuum de-airing prior to combining. Evacuation of the mixed components is mandatory in order to achieve best results. If further information is required, please contact BJB's technical staff for assistance.

STORAGE:

Store at ambient temperature in a 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.**

PACKAGING:

Gallon Kits.....	8 lbs. A, 4.8 lbs. B
5 Gallon Kits.....	40 lbs. A, 24 lbs. B
55-Gallon Drum Kits.....	400 lbs. A, 240 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.