

M-3180 REV 1 A/B

80 SHORE A POLYURETHANE ELASTOMER



BJB's "M Series" with work times between 15 and 20 minutes is perfect for a variety of part and mold applications. These flexible systems exhibit exceptional physical properties with a convenient mix ratio. For faster work time see our F-1 Series. Longer work times are available in the L Series of urethane elastomers.

- RoHS/REACH Compliant
- Phthalate Free
- Industrial Rollers
- Bushings & Shock Absorbers
- Over Molding
- Strain Reliefs

PHYSICAL PROPERTIES	TEST METHOD	ELEVATED TEMPERATURE CURE*
Hardness, Shore A	ASTM D2240-04e1	80 ± 5
Density (g/cc)	ASTM D792-00	1.101
Cubic Inches per Pound	N/A	25.8
Color/Appearance	Visual	Clear Amber
Tensile Strength (psi)	ASTM D412-98a(2002)e1	2,800
Tensile Modulus (psi)	ASTM D412-98a(2002)e1	1,300
Elongation (%)	ASTM D412-98a(2002)e1	720
Tear Strength (pli)	ASTM D624-00e1	350
Shrinkage (in/in) linear	ASTM D2566 @ 1" depth	0.0010 [†]
Dielectric Constant, 1 MHz	ASTM D150-87	5.55
Dissipation Factor, 1 MHz	ASTM D150-87	0.0614

*Note: Reported physical properties are based on test specimens cured 1-3 hours at room temperature then 16 hours at 160°F (71°C).
[†]Shrink test specimens are cured for 24 hours at room temperature and then 16 hours at 160°F (71°C).

HANDLING PROPERTIES	Part A	Part B
Mix Ratio by weight	100	50
Mix Ratio by volume	100	49
Specific Gravity @ 77°F (25°C)	1.067	1.091
Color	Pale Yellow	Amber
Viscosity (cps) @ 77°F (25°C) Brookfield	4,450	585
Mixed Viscosity (cps) @ 77°F (25°C) Brookfield	2,050	
Work Time, 100g mass @ 77°F (25°C)	15 – 20 minutes	
Gel Time	20 – 25 minutes	
Demold Time @ 77°F (25°C)	4 – 5 hours	

Properties above are typical and not for specifications.

CURE SCHEDULE/HEAT CURING:

Most of the physical properties can be achieved in 5-7 days at 77°F (25°C). You may use your own post-cure schedule but the physical properties may vary from BJB's cure schedule of 1-3 hours at 77°F (25°C) followed by 16 hours at 160°F (71°C). Do not exceed curing temperature of 200°F (93°C).

PREPARATION AND RELEASING:

When M-3180 REV 1 A/B is used to produce molds or parts from plaster, wood or other porous substrates, we would first recommend that they be sealed. Release agents may then be applied over the sealed surface.

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.

UV RESISTANCE:

This product is not classified as UV resistant. BJB offers an additive called UV-100, a UV inhibitor and anti-oxidant blend that will help slow down the effects of UV degradation and color change. The level of effectiveness varies from product to product.

NOTE:

Prolonged direct exposure to sunlight can affect the surface of this product. Cover molds or other products when storing outdoors.

ACCESSORIES:

BJB offers silicone RTV mold making materials along with a wide range of accessory items. These include de-airing agents, pigments, mold releases, and Jiffy® Mixers. Visit BJB's website at www.bjbenterprises.com or consult a BJB representative for more information.

STORAGE:

Store ambient temperatures, 65-80°F (18-27°C). Unopened containers will have a shelf life of 6 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	Cubic Inches per Kit
Quart Kits	2 lbs.	1 lb.	77
Gallon Kits	8 lbs.	4 lbs.	310
5-Gallon Kits	40 lbs.	20 lbs.	1,548
55-Gallon Drum Kits	440 lbs.	220 lbs.	17,028

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 laundry 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 diisocyanate and Naphthalene, which are known to the State of California to cause cancer. For more information, go to www.P65Warnings.ca.gov.



Handling Guide

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."