



MC-91 A/B

90 SHORE A POLYURETHANE ELASTOMER



MC-91 A/B is a production oriented, high performance elastomer system that can perform many functions. It features a mix ratio and working time that is ideal for machine dispensing and rapid part cycling. Product characteristics are:

- RoHS compliant
- Easy to use
- High tensile and tear strength
- Cures at room temperature to produce a strong, resilient elastomer

PHYSICAL PROPERTIES	TEST METHOD	ELEVATED TEMPERATURE CURE*
Hardness, Shore A	ASTM D2240-04e1	90 ± 5
Density (g/cc)	ASTM D792-00	1.108
Cubic Inches per Pound	N/A	25.46
Color/Appearance	Visual	Translucent Amber
Tensile Strength (psi)	ASTM D412-98a(2002)e1	3,160
Tensile Modulus (psi)	ASTM D412-98a(2002)e1	3,165
Elongation (%)	ASTM D412-98a(2002)e1	510
Tear Strength (pli)	ASTM D624-00e1	335
Shrinkage (in/in) linear	ASTM D2566 @ 1" depth	0.0064 [†]
Dielectric Constant, 1 MHz	ASTM D150-87	4.79
Dissipation Factor, 1 MHz	ASTM D150-87	0.0644

*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	95
Mix Ratio by volume	100	100
Specific Gravity @ 77°F (25°C)	1.120	1.057
Color	Pale Yellow	Amber
Viscosity (cps) @ 77°F (25°C) Brookfield	2,300	1,500
Mixed Viscosity (cps) @ 77°F (25°C) Brookfield	1,900	
Work Time, 100g mass @ 77°F (25°C)	80 – 90 seconds	
Gel Time	105 – 115 seconds	
Demold Time @ 77°F (25°C)	10 – 15 minutes	

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 MC-91 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.

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
5-Gallon Kits	40 lbs.	38 lbs.	1,986
55-Gallon Drum Kits	400 lbs.	380 lbs.	19,859

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.

NOTE:

Refer to the Safety Data Sheet before using this product. For processing tips and guides, please visit: learn.bjbmaterials.com to discover additional information.

⚠️WARNING: This product can expose you to chemicals including Naphthalene, which is known to the State of California to cause cancer. For more information, go to www.P65Warnings.ca.gov.