



MC-172 A/B

MACHINE CASTABLE

70 SHORE D POLYURETHANE ELASTOMER

PRODUCT DESCRIPTION:

The MC-172 A/B system is a production oriented fast gel and fast de-mold system. It features a mix ratio and working time ideal for machine dispensing, and rapid part mold cycling, for production applications.

PRODUCT HIGHLIGHTS:

- Designed for meter-mix dispense machine casting
- Does not contain MOCA, MDA or TDI
- Excellent mechanical properties
- Very easy to use
- No oily exudate; tintable or paintable
- Provides very rapid production of parts, composite structures, and molds
- Excellent impact resistance coupled with high flexural strength

PHYSICAL PROPERTIES:

Hardness, Shore D ASTM D-2240	70 ± 2
Specific Gravity, (g/cc) cured ASTM D-792.....	1.15
Cubic Inches Per Pound	24.8
Color/Appearance.....	Colorless, Translucent
Tensile Strength, (psi) ASTM D-638	3,900
Tensile Modulus, (psi) ASTM D-638	1.08 x 10 ⁵
Elongation, (%) ASTM D-638	55
Flexural Strength, (psi) ASTM D-790	3,500
Flexural Modulus, (psi) ASTM D-790.....	1.08 x 10 ⁵
Shrinkage, (in./in.) linear (12" x 1/2" x 1/2").....	0.003
Heat Deflection Temperature, (@ 66 psi) ASTM D-648.....	160°F (71°C)
Izod Impact, notched (ft.-lb./in.) ASTM D-256.....	2.0

Note: Physical properties obtained from test specimens post cured per recommended procedure.)

HANDLING PROPERTIES:

Mix Ratio (by weight):	
Part A.....	75 parts by weight
Part B	100 parts by weight
Mix Ratio (by volume):	
Part A.....	65 parts by volume
Part B	100 parts by volume
Specific Gravity, (g/cc):	
Part A.....	1.19
Part B	1.04

HANDLING PROPERTIES (continued):

Viscosity, (cps) @ 77°F (25°C) Brookfield:

Part A.....	550
Part B.....	1,150
Mixed.....	950

Color:

Part A.....	Clear Amber
Part B.....	Colorless, translucent

Work Time, (100-gram mass) @ 77°F (25°C) 1.5 - 2 minutes
Demold Time @ 77°F (25°C).....30 - 60 minutes

CURING:

MC-172 A/B will fully cure at ambient temperatures in 2 - 3 days. However, some physical properties will be slightly lower than published. Heat resistance (HDT) will be maximized if parts are post-cured within 24 hours after application (see below).

POST-CURING RECOMMENDED PROCEDURE:

After demolding, allow parts to further cure at room temperature for 2 - 4 hours. It is recommended that parts be post-cured at 120° - 130°F (49° - 54°C) for 2 - 4 hours, followed by 4 - 6 hours at 180° ± 10°F (82° ± 6°C). Support may be needed for certain configurations during this process.

NOTE:

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.

STORAGE:

Store in a cool dry place. Unopened containers will have a shelf life of 6 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:

1 Gallon kit.....	6 lbs. A, 8 lbs. B
5 Gallon kits.....	30 lbs. A, 40 lbs. B
55-Gallon Drum kits.....	300 lbs. A, 400 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. 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."