

Product Name

MD-60 A/B

Castable High Performance 60 Shore D Polyurethane



Product Description

MD-60 A/B is a two-component urethane casting compound that is specifically formulated for high abrasion and impact resistance. It is recommended for the production casting of highly wear-resistant parts, rollers and linings. The product exhibits great flexibility and excellent durability and is easily processed at room temperature. MD-60 A/B is relatively insensitive to typical environmental moisture and will make good void-free parts without the problems that some conventional urethane systems exhibit. Because of this products exceptional toughness and abrasion resistance, castings made with MD-60 A/B are particularly suitable for mining and mineral process industries.

Typical Applications

- Abrasion-resistant parts and lining
- Foundry patterns and core box liners
- Roller facings and casters
- Potting and encapsulation
- Cutting table tops
- Metal forming die facings
- Troughs, chutes and other equipment contacting any abrasive materials
- Machinery base pads and gears

Physical Properties

Hardness	Shore D	ASTM D-2240-04e1	60 ± 5
Specific Gravity	g/cc cured	ASTM D-792-00	1.147
Cubic Inches Per Pound			25.09
Color/Appearance			Clear Amber
Tensile Strength	psi	ASTM D-412-98a(2002)e1	4,700
Tensile Modulus	psi	ASTM D-412-98a(2002)e1	45,000
Elongation	%	ASTM D-412-98a(2002)e1	450
Tear Strength	pli	ASTM D-624-00e1	475
Shrinkage	in./in. linear @ 1" depth	ASTM D-2566	0.004*
Izod Impact	ft.-lb./in.	ASTM D-256-05	>16
Dielectric Constant	1MHz	ASTM D-150-87	4.659
Dielectric Factor	1MHz	ASTM D-150-87	0.047

Note: Reported physical properties are based on test specimens cured 1-3 hours at room temperature then 16 hours at 71°C.

*Shrink test specimens are cured for 24 hours at room temperature and then 16 hours at 71°C.

Handling Properties

Mix Ratio	by weight	Part A	100 pbw
		Part B	50 pbw
Mix Ratio	by volume	Part A	100 pbv
		Part B	50 pbv
Specific Gravity	g/cc	Part A	1.103
		Part B	1.111
Viscosity	cps @ 25°C Brookfield	Part A	4,500
		Part B	1,000
		Mixed	2,800
Colour		Part A	Pale Yellow
		Part B	Amber
Work Time	100g mass @ 25°C		10 - 15 minutes
Gel Time			15 - 20 minutes
Demould Time			2 – 3 hours
Cure Schedule	Most of the physical properties can be achieved in 5-7 days at 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 25°C followed by 16 hours at 71°C. Do not exceed curing temperature of 93°C.		

Properties above are typical and not for specifications.

Storage

Store in a dry place at room temperature. Unopened containers of MD-60 A/B will have a shelf life of 6 months, from date of shipment, when properly stored under normal temperature conditions of 18-27°C.

Previously opened containers are best kept by applying a dry nitrogen blanket before closing lids.

Notes

Cure times are subject to part size. Smaller parts may need additional time in the mould or add mild heat (38-49°C) to decrease demould time. **Heat will also increase toughness of parts upon demould.**

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

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Disclaimer

The data presented in this leaflet are in accordance with the present state of our knowledge, and does not absolve the user from carefully checking all supplies immediately on receipt. We reserve the right to alter product constants within the scope of technical progress or new developments. The recommendations made in this leaflet should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies' raw materials are also being used. Recommendations for use do not constitute a warranty, either expressed or implied, of the fitness or suitability of the product for a particular purpose.

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