

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		60 ± 5
Specific Gravity	g/cc cured		1.145
Cubic Inches Per Pound			25.0
Color/Appearance			Clear Amber
Tensile Strength	psi	ASTM D-412-98a	4,798
Tensile Modulus	psi	ASTM D-412-98a	40,682
Elongation	%	ASTM D-412-98a	416
Flexural Strength	psi	ASTM D-790	1,752
Flexural Modulus	psi	ASTM D-790	40,500
Tear Strength	pli	ASTM D-624	453
Shrinkage	in./in. linear	ASTM D-2566	TBD
Izod Impact	ft.-lb./in.	ASTM D-256	>16

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	50 parts by weight

Mix Ratio	by volume	Part A	100 parts by volume
		Part B	50 parts by volume
Specific Gravity	g/cc	Part A	1.10
		Part B	1.107
		Mixed	1.145
Viscosity	cps @ 25°C	Part A	3,220
		Part B	1,250
		Mixed	2,520
Colour		Part A	Pale Yellow
		Part B	Amber
Work Time	100-gram mass @ 25°C		15 - 17 minutes
Gel Time	100-gram mass @ 25°C		22 - 24 minutes
Demold Time	Normally 2-3 hours at ambient temperature; can be reduced to one hour with moderately elevated temperatures and/or molds.		
Cure Schedule	Full cure in 5-7 days at room temperature or post-cured 1-3 hours @ 25°C followed by 16 hours @ 82°C (see note).		

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

Post-curing the MD-60 A/B soon after demolding will enhance mechanical properties (tensile strength, tear strength and overall toughness), but may slightly increase shrinkage.

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5th July 2017

Revision Number

1

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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