

Product Name

WC-784 A/B

**Water Clear Rigid 82 Shore D
Urethane Casting System**



Product Description

WC-784 A/B is an impact resistant, rigid, 82 Shore D material that is commonly used to make clear or tinted castings of all kinds. When used at room temperature, castings 1/8" thick or larger can be readily cast. Castings that are less than 1/8" thick generally require a mild post-cure.

Product highlights include: exceptional clarity, impact resistant, no odor, and good weatherability.

Physical Properties

Hardness	Shore D	ASTM D-2240	82 ± 2
Density	g/cc	ASTM D-792	1.05
Cubic Inches Per Pound			26.4
Colour/Appearance			Clear/Colorless
Tensile Strength	psi	ASTM D-638	6,650
Tensile Modulus	psi	ASTM D-638	260000
Compressive Strength	psi	ASTM D-695	8,350
Compressive Modulus	psi	ASTM D-695	350000
Shrinkage	in./in. linear (12" x 1/2" x 1/2")	ASTM D-2566	0.004
Flexural Strength	psi	ASTM D-790	11,000
Flexural Modulus	psi	ASTM D-790	320000
Izod Impact	notched, (ft.-lb./in.)	ASTM D-256	1.0
Heat Deflection	@ 66psi	ASTM D-648	70°C
Elongation	%	ASTM D-638	65

Handling Properties

Mix Ratio	by weight	Part A	100 pbw
		Part B	85 pbw
Mix Ratio	by volume	Part A	100 pbv
		Part B	89pbv
Specific Gravity	g/cc	Part A	1.08
		Part B	1.03
Viscosity	cps @ 25°C Brookfield	Part A	650
		Part B	550
		Mixed	650 ± 50
Colour		Part A	Colorless
		Part B	Colorless
Work Time	@ 25°C	100g mass	6-7 minutes
Demold Time	@ 25°C		2-3 hours

Cure Schedule: 5 - 7 days at R.T., or 16 hours at 71° - 82°C.

Product is sufficiently cured after one day, ambient, for general handling. See heat curing below.

Cure Schedule/Heat Curing

Generally, for most applications, ambient temperature curing is adequate; however, maximum physical properties and heat resistance is obtained by post curing WC-784 for 16 hours at 71° - 82°C, or 6 - 8 hours at 82° - 99°C. Parts may require some support during heat cure. A suggested cure schedule is: 3 - 5 days at room temperature (to minimize any softening during heating), followed by 4 - 6 hours at 54° - 66°C, and an additional 16 hours at 71° - 82°C. This cure schedule minimizes part distortion and shrinkage, while affording maximum toughness and heat sag resistance.

Storage

All materials should be kept in tightly closed containers out of contact with moist air. Stored under these conditions at temperatures of 16° - 27°C, the shelf life is 6 months from date of shipment. Part B may turn hazy or partially freeze below 18°C storage. Warming to 27° - 32°C will return product to a clear state.

Notes

The cure will be inhibited if cast against a tin catalyzed silicone RTV.

Issue Date

19th February 2025

Revision Number

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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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