

Product Name

TC-890 A/B

Rigid 80 Shore D Urethane Casting System



Product Description

TC-890 A/B incorporates a non-mercury based catalyst system that produces a tough 80 shore D material with a 5-minute work time. This system can be used to hand pour electronic housing, models of all kinds, and point of purchase items. This system is also available in a 20-minute work time (TC-892), and a 12-minute work time (TC-891).

Product highlights include: non-mercury, convenient mixing ratio: 1 to 1 parts by weight, low viscosity, flows easily, demold time: 1-2 hours at ambient temperature in a silicone rubber mold (1/8" thick section).

Physical Properties

Hardness	Shore D	ASTM D-2240	80 ± 2
Specific Gravity	g/cc cured	ASTM D-792	1.14
Cubic Inches Per Pound			25
Color/Appearance			Off White/Opaque
Tensile Strength	psi	ASTM D-638	7,600
Tensile Modulus	psi	ASTM D-638	2.4 x 10 ⁵
Elongation	%	ASTM D-638	10
Flexural Strength	psi	ASTM D-790	10,000
Flexural Modulus	psi	ASTM D-790	2.5 x 10 ⁵
Shrinkage	in./in. linear (12" x 1/2" x 1/2")		0.004
Izod Impact	ft.-lb./in.	ASTM D-256	0.70
Heat Deflection Temperature	ASTM D-648	@ 66 psi	91°C
		@ 264 psi	81°C

Note: Reported physical properties based on elevated temperature cured test specimens.

Handling Properties

Mix Ratio	by weight	Part A	100 pbw
		Part B	100 pbw
Mix Ratio	by volume	Part A	88 pbv
		Part B	100 pbv
Specific Gravity	g/cc	Part A	1.18
		Part B	1.04
Viscosity	cps @ 25°C Brookfield	Part A	325
		Part B	830
		Mixed	725
Colour		Part A	Yellow
		Part B	White
Work Time	100-gram mass @ 25°C		5 minutes
Gel Time			7 minutes
Demold Time	@25°C		1-2 hours

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 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 82°C. Do not exceed curing temperatures of 93°C. Support of the part may be required to prevent part deformation during heat cure.

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.

Notes

It is advisable whenever possible to evacuate entrapped air prior to casting this system. The use of a de-airing agent can speed up the process. BJB's AF-7 antifoam works best as the de-airing agent. In conjunction with these support products BJB offers pigments in a wide variety of colors and stainless steel mixers called "Jiffy Mixers." If help is required call BJB for assistance. For additional information on the use of this product, refer to BJB Guidelines for Handling Polyurethane Products.

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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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