Barnes **Technical Data Sheet**

Product Name

TC-1630 A/B
Ultracast II

Product Description

TC-1630 A/B Ultracast is a very hard, tough, fast setting filled polyurethane casting resin system which is ideal for a wide range of casting jobs such as pattern duplication, vacuum forming tools, tracing tools, foundry core boxes, wax casting molds, and general casting molds. This system is frequently used to pour into alginate to produce cores for foam latex molds.

Product highlights include: foam latex molds, excellent heat resistance to 121°C, very low shrinkage, low exotherm, short demold time, excellent detail reproduction, low viscosity, non-mercury based catalyst system.

Physical Properties

Hardness	Shore D	ASTM D-2240	84 ± 2
Density	g/cc	ASTM D-792	1.80
Cubic Inches Per Pound			16.5
Color/Appearance			Gray/Opaque
Flexural Strength	psi	ASTM D-790	6,221
Compressive Strength	psi	ASTM D-695	8,400
Shrinkage	in./in. linear		0.002

Handling Properties

Mix Ratio	by weight	Part A	100 parts by weight
		Part B	100 parts by weight
Mix Ratio	by volume	Part A	93 parts by volume
		Part B	100 parts by volume
Specific Gravity	g/cc	Part A	1.73
		Part B	1.60
Viscosity	cps @ 25°C Brookfield	Part A	900
		Part B	1,300
		Mixed	1,100
Colour		Part A	Black
		Part B	White
Work Time	@ 25°C		5-6 minutes
Gel Time	@25°C		7-8 minutes
Demold Time			1 hours

TC-1630 A/B can usually be used an hour or two after casting, even in thin sections of 1/4" or less. It also may be cast very thick (8-10" or more) without creating excessive exotherm. Thick sections (e.g. over 4 inches) can generate somewhat increased shrinkage. To avoid this problem, casting around a displacement core or stage pouring is recommended.

TC-1630 A/B can be cast into all dry mold materials such as metal, plastic, urethane, RTV, sealed wood or plaster. Plaster molds should be sealed with RF-5124 or an appropriate sealer, followed by two coats of a paste wax such as Meguiar's # 87.

Mixing Instructions

TC-1630 A/B settles on standing but is easily remixed. Thoroughly mix cans A and B separately, preferably with a Jiffy Mixer. Then combine equal parts of A and B by weight. Mix thoroughly for not more than 30 seconds and pour promptly. Do not mix in the original containers. Polyethylene mixing pails are excellent and may be reused. Be sure all material on the sides and bottom are well mixed. After each use, cans should be purged with dry nitrogen and tightly sealed to prevent moisture in the air from reacting with the contents.

Caution

Platinum cure silicone rubbers will not cure against the TC-1630 A/B. For further information, contact BJB's technical staff for recommended products and procedures.

Storage

Store in a cool dry place. Unopened containers will have a shelf life of 3 months form date of shipment when properly stored at room temperatures. Purge opened containers with dry nitrogen before re-sealing.

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Revision Number

2

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