



PTM&W Industries, Inc.

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OC-3700

PRODUCT BULLETIN

EPOXY OPTICAL CEMENT

DESCRIPTION

OC3700 is a two-part, room temperature curing epoxy optical cement. OC3700 is recommended for glass to glass bonding, where its low mixed viscosity and room temperature cure allow as much as an hour for close positioning. In addition, its index of refraction and unusually low coefficient of thermal expansion make it especially suited to glass bonding.

PRODUCT SPECIFICATIONS

	OC3700 Part A	OC3700 Part B	Test Method
Color	Clear	Clear	Visual
Viscosity, centipoise	800 - 1200 cps	80 - 200 cps	ASTM D23932
Specific Gravity, gm./cc	1.05 - 1.15	0.99 - 1.03	ASTM D1475
Mix Ratio By Weight	100 Parts Resin to 26 Parts Hardener		PTM&W
Pot Life, 100 gm Mass @ 77°F	25 - 45 minutes		ASTM D2471

HANDLING INSTRUCTIONS

1. Combine 100 parts by weight OC3700 Part A with 26 parts by weight OC3700 Part B, and mix thoroughly.
2. Gel time is 25 to 45 minutes @ 77°F in a 100 gram mass.
3. A cure sufficient for handling will be achieved in 24 to 36 hours at room temperature, or 4 to 6 hours at 150°F. In either case, full cure is achieved after 5 to 7 days at room temperature.
4. Parts bonded with OC3700 can be removed by immersing in Dimethyl Formamide (DMF) at 180°F - 200°F for 8 to 24 hours.

* **CAUTION:** DMF is a tetraterogen, and supplier's precautions must be followed.

TYPICAL MECHANICAL PROPERTIES

	OC3700 A / B	Test Method
Mix Ratio By Weight	100 Parts Resin to 26 Parts Hardener	PTM&W
Color	Clear	Visual
Mixed Viscosity, centipoise	300 - 600 cps	ASTM D2393
Cured Hardness, Shore D	86 Shore D	ASTM D2240
Cured Specific Gravity, grams, cc	1.04 - 1.10	ASTM D1475
Tensile Strength, psi	6,970 psi	ASTM D638
Elongation at Break, %	1.5 %	ASTM D638
Tensile modulus, psi	496,000 psi	ASTM D638
Flexural Strength, psi	14,226 psi	ASTM D790
Flexural Modulus, psi	563,824 psi	ASTM D790
Compressive Strength, psi	14,360 psi	ASTM D695
Glass Transition Temperature, Tg	62.4°C, 144°F (DSC)	ASTM D3418
	62.9°C, 145°F (TMA)	ASTM D3386
	62.6°C, 145°F (DMA)	ASTM D4065
Thermal Coefficient of Expansion, Range: 30°C to 50°C	6.38 x 10 ⁻⁵ inch/inch/°C 3.54 x 10 ⁻⁵ inch/inch/°F	ASTM D696

PACKAGING WEIGHTS

OC3700 is packaged in glass Pint bottles at 1 lb. Net Weight each for Part A and Part B. A Kit consists of 3 Pints Part A plus 1 Pint Part B.

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