EPOXY
TECHNOLOGY

DATA SHEET

EPO-TEK®

375

(Formerly OE175)

High Temperature Epoxy

TYPICAL PROPERTIES

(To be used as a guideline only)

NUMBER OF COMPONENTS	Two
MIXING RATIO	PARTS BY WEIGHT
Part "A"	10
Part "B" (hardener)	1
(Keep containers closed when not in use)	
Maximum recommended mixed quantity should not exceed	25 grams
CURE SCHEDULE (Bond line temperature)	
150°C	5 minutes
120°C	20 minutes
100°C	40 minutes
80°C	90 minutes

PHYSICAL PROPERTIES

Color:	Before Cure:	Straw
	After Cure:	Amber to Red
Specific Gravity		1.12

Viscosity (mixed) @ 50 rpm/25°C:
2,000 - 4,000 cPs

Glass Transition Temp. (Tg)	130°C
Lap Shear Strength @ 25°C	2312 psi

CTE (Coefficient of Thermal Expansion)
Below Tg: 48 x 10^{-6} in/in/°C
Above Tg: 184 x 10^{-6} in/in/°C

Shore D Hardness	88
Tensile Strength	8,500 psi
Compressive Strength	10,000 psi
Degradation Temperature	400°C
Outgas @ 250°C	0.4258%
@ 300°C	0.8821%
@ 350°C	1.857%

Operating Temperature:
Continuous: 200°C Intermittent: 300°C

OPTICAL PROPERTIES
Spectral Transmission:
600 - 900 nm: > 95% transmittance

POT LIFE	4 - 6 hours

SHELF LIFE
One Year when stored at room temperature
REFRIGERATION IS NOT REQUIRED

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EPO-TEK 375 provides unparalleled properties that are required for many fiber optic applications. With a long pot life, excellent handling characteristics, low viscosity and the change from straw to an amber/reddish color when cured, this material is ideal for fiber optic bundling, F/O connector termination's and bonding of various surfaces. Adhesion to glass, metals, ceramics, silicon, and most plastics (exceptions: polypropylene, polyethylene, PVC, silicone or Teflon) is exceptional.

The potential for dermatetic reaction using the EPO-TEK 375 is eliminated as a result of the unique chemistry used in this material. There are no solvents or thinners in the epoxy to be concerned with. The consistency is suited to being applied by brush, dipping, pouring or mechanical dispensing techniques. It is recommended to be used only in thin or thick film applications. Where extra thick sections are needed, the adhesive should be mixed, allowed to gel at room or slightly above room temperature, applied, and then cured at elevated temperature.

EPO-TEK 375 is a 100% solids, heat curing adhesive designed for elevated temperature applications. This epoxy will endure 300°C for several hours and operate continuously at 200°C. It exhibits a glass transition temperature of 130°C with a degradation temperature at 400°C. When fully cured, the epoxy is resistant to most solvents and chemicals used for cleaning operations during assembly processes.

EPO-TEK 375 was formulated for bonding single glass fibers or bundles in ferrules, to provide maximized thermal and moisture resistance, polishability, and to meet Bellcore specifications for telecommunication and data linking applications. Not limited to fiber optic applications, this adhesive is suited for adhering surgical scalpel blades, balloon angioplasty devices, disposable catheters in the medical device industry as well as other optical and opto-electronic assemblies.

Zur Beachtung:

Vorstehende Angaben können nur allgemeine Hinweise sein. Bei den aufgeführten Eigenschaften und Leistungsmerkmalen handelt es sich um circa-Werte, diese sind nicht Teil der Produktspezifikation. Wegen der außerhalb unseres Einflusses liegenden Verarbeitungs- und Anwendungsbedingungen und der Vielzahl unterschiedlicher Materialien empfehlen wir, in jedem Fall zunächst ausreichende Eigenversuche durchzuführen. Eine Haftung für konkrete Anwendungsergebnisse kann daher aus den Angaben und Hinweisen in diesem Merkblatt nicht abgeleitet werden.
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Änderungen vorbehalten / Stand : 29.07.2004