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Adhesives • Conductives • Encapsulants

Technical Data Sheet

505-04

One Component Epoxy

DESCRIPTION

505-04 is a one component epoxy adhesive and sealing compound. 505-04 is a high viscosity, rigid, fast curing epoxy adhesive, which yields a high heat and chemical resistant end product. It has excellent resistance to water, solvents, and other harsh chemicals. 505-04 can be used as a filter compound sealing media, as well as and adhesive for bonding ceramics and metals.

ADVANTAGES

- ☐ One-part Epoxy
 - ☐ Excellent adhesion to a wide variety of substrates
 - ☐ Excellent cure depth
 - ☐ High cohesive strength
- ☐ Tough
 - ☐ Automated dispense is easily accomplished.
 - ☐ Fast curing
 - ☐ Solvent free

Typical UNCURED PROPERTIES

Property	Test Method	Typical Value
Viscosity (Brookfield DBVI+ Spindle #7)	ASTM D 2393 1 rpm	224,000 cP
Viscosity (Brookfield DBVI+ Spindle #7)	ASTM D 2393 10 rpm	69,600 cP
Thixotropy		~3.2
Stroke Cure (160°C)		90 sec
Density	ASTM D 792	10.9 lb/gal
Specific Gravity	ASTM D 792	1.30
Hegman Grind		1.5 mils

TYPICAL CURED PROPERTIES

Property	Test Method	Typical Value
Tensile Strength (Al:Al)	ASTM D1002 (25°C)	3066 PSI
Hardness	Shore D – At 160°C	71D
Sag Resistance		.9293"
Glass Transition Temperature		126°C

Application INFORMATION

- The 505-04 is suitable for use in filter compound sealing media.
- 505-04 was specifically designed to bond filter end caps and filter side seams.
- Please contact a Cox Sales Company technical service professional for additional product recommendations.

CURE

Differential Scanning Calorimetry (DSC) equipment was used to estimate the cure time for

SCHEDULE

99% conversion of the material.

	Cure Temperature	Cure Time (Minutes)
	121°C	20
	160°C	3
	180°C	1

Clean Up 505-04 can be easily cleaned with Acetone, Methyl Ethyl Ketone or PM Acetate. Other less stringent solvents and cleaners may be used but may not be as effective at cleaning.

STORAGE AND

- **HANDLING** 505-04 has a maximum shelf life of six months if left in an unopened container and stored at or below 0°C.
- It is recommended that the product be stored at or below 0°C for a minimal increase in viscosity. Avoid high temperature exposure which will induce increase in viscosity.
- 505-04 will have a maximum shelf life of four months if stored at 25°C.
- The product must be conditioned back to ambient temperature (approximately 25°C) before use.
- **HEALTH AND SAFETY** 505-04 can cause severe eye irritation including stinging, redness and eye swelling.
- Avoid skin contact. 505-04 can cause mild skin irritations including redness or induce a rash. It should not aggravate any current skin conditions.
- If ingested, consult a physician immediately.
- Consult Cox Sales Company Product Material Safety Data Sheet for additional information on 505-04.

APPLICATION

ASSISTANCE Cox Sales Company application specialists are available to assist you in production start-up with 505-04. For information, please call Cox Sales Company (540)345-2636

