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♦ TECHNICAL BULLETIN ♦ TECHNICAL BULLETIN ♦ TECHNICAL BULLETIN ♦

Epoxy Resin RBC #3425

RBC-3425 is a filled, low viscosity casting epoxy resin which can be used for duplicating any size casting when used with the appropriate epoxy hardener. RBC-3425 when mixed with AB-312 hardener yields castings with excellent high temperature properties. Because these are 100% solids systems there is very little shrinkage.

HANDLING PROPERTIES:

Mixed Viscosity @ 25°C, cps	950
Shelf Life, (closed Container @ 25°C)	12 months

PHYSICAL PROPERTIES (CURED):

Color	Tan
Specific Gravity @ 25°C	1.40
Hardness, Shore D	87
Linear Shrinkage, in./in.	0.003
Moisture Absorption 10 Days @ 25°C, %	0.20
Izod Impact Strength, ft. lbs./in. of notch	0.31
Tensile Strength @ 25°C, psi	7,100
Compressive Strength @ 25°C, psi	15,800

THERMAL PROPERTIES (CURED):

Thermal Conductivity, cal/sec/cm ² /°C/cm X 10 ⁻⁴	8.0
Thermal Stability, 1000 Hrs. @ 175°C, % Wt. Loss	0.50
Coefficient of Thermal Expansion, in./in./°C X 10 ⁻⁶	39
Heat Distortion Temperature, °C	55
Operating Temperature Range, °C	-55 to 155

ELECTRICAL PROPERTIES (CURED):

Volume Resistivity @ 25°C, ohm-cm	8x10 ¹⁶
Dielectric Strength, volts/mil	475
Dielectric Constant @ 25°C, 100 KC	4.1
Dissipation Factor @ 25°C, 100 KC	0.021

(Note: The above properties are typical of a system cured with hardener #B-31.)

RECOMMENDED HARDENERS:

AB-85: A fast set room temperature cure hardener used to make small castings. Can use heat for very fast cures.

AB-98: A medium set room temperature cure hardener with a good working time (90 minutes). Can be used to make small to medium size castings. Can also use heat for faster cures.

AB-312: A medium set room temperature or heat cure system that can withstand high temperatures (300°F). Can also use heat for faster cures.

B-31: A slow set heat cure system with a long working time (3 hours) offering excellent air release for pieces with undercuts.

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MIXING INSTRUCTIONS:

Weigh the desired amount of #3425 Resin into a clean container and combine with recommended hardener in one of the ratios shown below.

Hardener	Parts by wt. per 100 pts. resin	Pot Life 100 grms. @ 25°C
AB-85	25	10-15 min.
AB-98	25	90 min.
AB-312	17	2 hrs.
B-31	25	3 hrs.

RECOMMENDED CURE SCHEDULE:

Hardener	Cure @ 25°C	Cure @ 65°C	Cure @ 100°C
AB-85	12 HRS.	30 MINS.	-
AB-98	24 HRS.	1 HR.	30 MINS.
AB-312	24-36 HRS.	1 1/2 HRS.	1 HR.
B-31	-	2 HRS.	1 HR.