

20-3652-40 EPOXY RESIN

DESCRIPTION:

20-3652-40 is a filled epoxy casting, potting, and encapsulating resin system. This is a lower viscosity version of the 20-3652. This system exhibits excellent physical, thermal, and electrical insulation properties. 20-3652-40 is easily machined and exhibits outstanding adhesion to metals, ceramics, and plastics.

The flame retardant version is 20-3652-40FR.

TYPICAL SPECIFICATIONS:

	<u>Resin</u>	<u>CAT.190</u>	<u>CAT.30</u>	<u>CAT.145</u>
Viscosity Resin, 25°C cps	35,000	---	---	---
Mixed Viscosity, 25°C cps		10,000	6,000	2,000
Specific Gravity, 25°C	1.47	---	---	---
Hardness, Shore D		88	88	85
Cure Shrinkage, in/in		.0015	.0015	.0015
Tensile Strength, psi		6,100	9,200	6,300
Compressive Strength, psi		19,300	15,500	17,500
Operating Temp. Range, °C		-40 to +130	-55 to +155	-65 to +105
Dielectric Strength, V/mil		450	450	450
Dielectric Constant at 1MHz		3.9	3.8	3.8
Volume Resistivity, ohm-cm		10 ¹⁵	>10 ¹⁴	>10 ¹⁴
Dissipation Factor, 1MHz		.06	.02	.07
Water Absorption, % (24Hr.)		0.3	0.1	0.3
Thermal Conductivity, W/m- °K		0.66	0.66	0.66
Thermal Expansion Coefficient, per °C		48x10 ⁻⁶	45x10 ⁻⁶	60.5x10 ⁻⁶
Flexural Strength, psi		12,000	14,000	10,000

INSTRUCTIONS FOR USE:

ROOM TEMPERATURE CURING WITH CATALYST 190

Catalyst 190 is designed for applications requiring a room temperature curing system with excellent physical and electrical insulation properties.

1. By weight, thoroughly mix 8-9 parts Catalyst 190 to 100 parts 20-3652-40 Resin.
2. Pour and allow to cure according to one of the following schedules:
 - a) 25°C (77°F) 16-24 Hours
 - b) 45°C (113°F) 4-6 Hours
 - c) 65°C (149°F) 1-2 Hours

HEAT CURING WITH CATALYST 30 (Recommended for higher operating temperature and physical property applications):

1. By weight, thoroughly mix 15.5 parts Catalyst 30 to 100 parts 20-3652-40 Resin
2. Pour and cure according to one of the following recommended cure schedules:
 - a) 85°C (185°F) 3-4 hours
 - b) 100°C (212°F) 2-3 hoursFor optimum performance, an additional 2 hours @ 365°F (185°C) is recommended.

ROOM TEMPERATURE CURING WITH CATALYST 145

Catalyst 145 is designed for a lower mixed viscosity and long pot life. Has outstanding low temperature properties and good adhesion to glass.

1. By weight, thoroughly mix 18 parts Catalyst 145 to 100 parts 20-3652-40 Resin
2. Pour and allow to cure according to one of the following schedules:
 - a) 25°C (77°F) 24 Hours
 - b) 45°C (113°F) 3-6 Hours
 - c) 65°C (149°F) 3-4 Hours

IMPORTANT:

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