

# Epic Epoxy R1055/H5083

Epoxy; Epoxide

Epic Resins

## Message:

Epic R1055/H5083 is a vacuum grade modified epoxy system designed to achieve penetration of tightly wound electrical coils. The system cures at ambient temperatures thereby affording the user the opportunity to reduce substantial energy costs normally associated with heat curing systems. R1055/H5083 features a good combination of physical and electrical properties that qualify the compound for potting high voltage power supplies. R1055/H5083 is appropriate for devices with hot spot temperatures up to 140C. This system is UL 94 HB recognized at 1.5mm.

General Information			
Features	Good Electrical Properties		
Uses	Electrical/Electronic Applications		
	Electronic Insulation		
RoHS Compliance	RoHS Compliant		
Processing Method	Encapsulating		
	Potting		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.45 to 1.50	g/cm <sup>3</sup>	ASTM D792
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D, 25°C)	83 to 87		ASTM D2240
Thermal	Nominal Value	Unit	Test Method
Glass Transition Temperature	76.0 to 84.0	°C	ASTM E1356
CLTE - Flow	4.3E-5 to 4.7E-5	cm/cm/°C	ASTM D696
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.9E+15 to 2.1E+15	ohms · cm	ASTM D257
Dielectric Strength (2.03 mm)	21 to 23	kV/mm	ASTM D149
Dielectric Constant (100 kHz)	3.61 to 3.99		ASTM D2520
Dissipation Factor (100 kHz)	0.014 to 0.015		ASTM D150
Thermoset	Nominal Value	Unit	Test Method
Thermoset Components			
	Mix Ratio by Volume: 1.0		
Hardener	Mix Ratio by Weight: 18		
	Mix Ratio by Weight: 100		
Resin	Mix Ratio by Volume: 3.3		

Pot Life <sup>1</sup> (25°C)	180 to 240	min	
Thermoset Mix Viscosity (25°C)	2000 to 3000	cP	ASTM D2393
NOTE			
1.	200 Gram Mass		

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