

Resinlab® EP1285HD-9 Highly Filled, Medium Viscosity Casting Resin

Category : Polymer , Thermoset , Epoxy , Epoxy Cure Resin , Epoxy, Cast, Metal Filled

Material Notes:

Resinlab™ EP1285 (Formerly Lab Product W021901 series) is a highly filled, medium viscosity black casting resin designed for applications requiring a high degree of thermal conductivity and a low CTE combined with a moderate free flowing viscosity. They give excellent resistance to acids, bases, water, and most organic compounds. The high filler content also enhances resistance to thermal cycle stresses. The choice of hardener allows the user to choose a variety of reactivity's, viscosities, thermal ranges and environmental resistance capabilities. The resin contains a high loading of abrasive aluminum oxide filler, which can introduce wear considerations for wetted components of meter-mix and dispensing equipment. Warming the assembly prior to filling will aid in flow and air release. Additional vacuum degassing may be desired for some applications. Information Provided by Resinlab L.L.C., an Ellsworth Adhesives Company.

Order this product through the following link:
http://www.lookpolymers.com/polymer_Resinlab-EP1285HD-9-Highly-Filled-Medium-Viscosity-Casting-Resin.php

Physical Properties	Metric	English	Comments
Specific Gravity	2.22 g/cc	2.22 g/cc	
Water Absorption	0.45 %	0.45 %	TM R050-35
	@Time 86400 sec	@Time 24.0 hour	
Viscosity	40000 cP	40000 cP	Mixed, RVT, #6, 2.5 rpm; TM R050-12
Linear Mold Shrinkage	0.0020 cm/cm	0.0020 in/in	

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	95	95	TM R050-19
Tensile Strength at Break	37.9 MPa	5500 psi	TM R050-36
Tensile Strength, Ultimate	37.9 MPa	5500 psi	TM R050-36
Tensile Strength, Yield	20.7 MPa	3000 psi	TM R050-36
Elongation at Break	0.00 - 1.0 %	0.00 - 1.0 %	TM R050-36
Tensile Modulus	8.27 GPa	1200 ksi	TM R050-36
Compressive Yield Strength	82.7 MPa	12000 psi	TM R050-38
Compressive Strength	75.8 MPa	11000 psi	Break; TM R050-38
	82.7 MPa	12000 psi	Ultimate; TM R050-38
Compressive Modulus	5.17 GPa	750 ksi	TM R050-38
Adhesive Bond Strength	9.65 MPa	1400 psi	Lap shear; 2024 T3 Al Abraded / MEK Wipe

Thermal Properties	Metric	English	Comments
CTE, linear	35.0 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$	19.4 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$	below Tg
	@Temperature $\leq 79.0^{\circ}\text{C}$	@Temperature $\leq 174^{\circ}\text{F}$	
	99.0 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$	55.0 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$	above Tg
	@Temperature $\geq 79.0^{\circ}\text{C}$	@Temperature $\geq 174^{\circ}\text{F}$	
Thermal Conductivity	1.25 W/m-K	8.68 BTU-in/hr-ft ² -°F	
Maximum Service Temperature, Air	130 °C	266 °F	
Minimum Service Temperature, Air	-40.0 °C	-40.0 °F	
Glass Transition Temp, Tg	79.0 °C	174 °F	TM R050-25

Electrical Properties	Metric	English	Comments
Volume Resistivity	$\geq 1.00\text{e}+15$ ohm-cm	$\geq 1.00\text{e}+15$ ohm-cm	
Dielectric Constant	5.0	5.0	
Dielectric Strength	14.4 kV/mm	365 kV/in	

Processing Properties	Metric	English	Comments
Cure Time	60.0 - 120 min	1.00 - 2.00 hour	
	@Temperature 65.0 °C	@Temperature 149 °F	
	240 - 360 min	4.00 - 6.00 hour	
	@Temperature 45.0 °C	@Temperature 113 °F	
	960 - 1440 min	16.0 - 24.0 hour	
	@Temperature 25.0 °C	@Temperature 77.0 °F	
Pot Life	45 - 60 min	45 - 60 min	Mass: 100g; TM R050-17

Descriptive Properties	Value	Comments
Color	Black	
Mix Ratio	11.5:1	Volume
	27:1	Weight

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China