

Nanocyl EPOCYL[™] NC R1MY-02 Master Batch Liquid tetrafunctional epoxy Resin for Hot-Melt Formulation Purposes: Dilution Factor 6

Category : Polymer , Thermoset , Epoxy , Epoxy/Carbon Fiber Composite

Material Notes:

EPOCYL[™] NC R1MY-02 is a Master Batch based on liquid tetrafunctional epoxy resin containing high concentration of Carbon Nanotubes (CNT) produced by Nanocyl, with a suggested dilution factor of 6. It is specifically developed to enhance the mechanical properties of the final fiber reinforced composite materials. Special features include easy integration and great flexibility in design of new multifunctional materials. Applications: High performance structural composite partsAutomotive (bumpers and other structural parts)Marine, especially sailing boats (structural outer shell in carbon fiber composite, masts and other generic structural parts)Industrial parts (rollers, doctorblades and wind-mill blades)Sporting equipments (bike frames, hockey sticks, tennis rackets, skis and golf shafts)Aerospace (structural parts and interiors)Main direct advantagesImproved fracture toughness (G1C) of over 100% = higher crack propagation/delamination resistanceImproved failure strength: transverse and off-axis (+/- 45°) by over 15% = higher shear resistanceReduced CTE of over 15% = less distorted parts producedNo reduction in the Tg = possible to be used in any formulationAdditional advantages in generalElectrical properties: induces antistatic properties in the composite parts; excellent for electrostatic painting applicationFlame resistance: higher resistance to flammability up to UL 94 level on the final fiber reinforced compositeBetter thermal dissipation: avoids hot-spots during curing, more homogenous temperatureCuring agents EPOCYL[™] NC R1MY-02 can be cured or cross-linked with different types of curing agents depending on the properties desired in the final composite.IMPORTANT: EPOCYL[™] NC R1MY-02 is not an additive in your formulation, it is a substitution product for the equivalent parts of your conventional TGMDA liquid resin. EPOCYL[™] NC R1MY-02 is not designed to be used with solvent.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Nanocyl-EPOCYL-NC-R1MY-02-Master-Batch-Liquid-tetrafunctional-epoxy-Resin-for-Hot-Melt-Formulation-Purposes-Dilution-Factor-6.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.15 - 1.18 g/cc	1.15 - 1.18 g/cc	
Viscosity	5000 - 35000 cP	5000 - 35000 cP	Measured with parallel plate in dynamic mode ar 10 rad/s and a strain of 1%.
	@Temperature 60.0 °C	@Temperature 140 °F	
	235000 - 345000 cP	235000 - 345000 cP	Measured with parallel plate in dynamic mode ar 10 rads/s and a strain of 1%.
	@Temperature 25.0 °C	@Temperature 77.0 °F	

Descriptive Properties	Value	Comments
Aspect	Paste, black (Master Batch)	
Epoxy Equivalent	112.2 - 119.5 g/eq	
Epoxy Value	8.36 - 8.91 eq/kg	
Storage Temperature	5°C	



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