POLYMER G

Technical Data:
Issued: Nov.2011
Revision 4: April 2021, Page: 1

Compound EP 140/ Hardeners EPC 9 EPC 2264/ EPC 124

Product Description

EP 140 is a highly filled potting/encapsulating epoxy compound, exhibiting high thermal conductivity, low thermal expansion and excellent electrical insulating properties. EP 140 can be used with a variety of curing agents.

Features & Benefits

- High thermal conductivity
- Low viscosity
- High temperature resistance
- Excellent insulation properties
- Flexible pot life
- Low shrinkage

Applications

Encapsulation of electrical and electronic devices and components, where high heat dissipation and low thermal expansion are needed

Typical Uncured Properties

Note: **The following technical information and data should be considered representative or typical only and should not be used for specification purposes.**

Compound EP 140	
Appearance/Color	Black/Red/Grey
Viscosity@25ºC, mPa*s	40000-60000
Density@ 25ºC, g/cm^3	2.2-2.3
Equivalent Weight (calc.), g/eq	700-800

Instructions for use:

Warm EP 140 to 40-50ºC and stir contents thoroughly before withdrawing material.
Weigh required amount of resin and hardener into a clean container in the recommended ratio. Blend thoroughly being careful to scrape sides and bottom of the container for 3-4 minutes to ensure uniform mixture.
To produce a void-free casting the mixture should be deairing at 2-5 mmHg for 5-8 minutes to remove trapped air.
Pour the mixture into mold.
Preheating the mold reduces viscosity of the mixture and improves its flow.
Further deairing in the mold may be required.

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	Compound EP 140	EPC 9	EPC 2264	EPC 124
Processing	**Viscosity**@25ºC, mPa*s	140-250	1500-2000	40-60
	Mix Ratio, w/w	100:4.2-4.6	100:7.2-7.8	100:7.0-7.5
	Mix Viscosity@ 25°C**,** mPa*s	10000-15000	9000-14000	8000-12000
	Gel Time @ 25°C, (100g), min	25-50	180-200	100-150
	Typical Curing Schedule	24hr/RT	24hr/RT + 4hr/80ºC	24hr/RT
Cured Properties*	**HDT,** °C (0.455 MPa force)	80-100	80-100	80-100
	Hardness, Shore D	90	90	90
	Tensile Strength, MPa	40-60	40-60	45-70
	Tensile Elongation, %	0.4-1.0	0.4-1.0	0.4-1.0
	Service Temperature, ºC	-40÷ 140	-40÷ 160	-40÷ 100

*) The samples were tested after post-curing 2-3hr at 120ºC

Storage and Handling

The shelf life of the EP 140 is 12 months at 20-35°C.
For the best results, store in tightly closed original containers.
Certain resins and hardeners are susceptible to crystallization. If crystallization occurs, warm the container to 50-60°C until the crystals have dissolved.
Stir and allow content to cool to room temperature before use.

Packaging

Packaging sizes are available from 1L up to 18L pails.

Limitation of Liability

Except where prohibited by law, Polymer-G and seller will not be liable for any loss or damage arising from the Polymer-G product, whether direct, indirect, special, incidental or consequential, regardless of the legal theory asserted, including warranty, contract, negligence or strict liability.

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