

Technical Data:

Issued: Nov.2011

Revision 2: Dec. 2016, Page: 1

**Compound EP 140S/ Hardeners EPC 124/
EPC 2264/EPC 304IP55**

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

Features & Benefits

- High thermal conductivity
- Non-magnetic
- High temperature resistance
- Excellent insulation properties
- Flexible pot life
- Low VOC

Applications Encapsulation of electrical and electronic devices and components, where high heat dissipation, low thermal expansion and non-magnetic properties 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 140S	
Appearance/Color	Black
Viscosity@25°C, mPa*s	40000-60000
Density@ 25°C, g/cm³	2.2-2.3
Equivalent Weight (calc.), g/eq	700-800

Instructions for use: Warm EP 140S to 40-50°C 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.

Technical Data:

 Issued: Nov.2011
 Revision 2: Dec. 2016, Page: 2

Compound EP 140/ Hardeners EPC 9 EPC 2264/ EPC 124/EPC 304IP55

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Processing	Compound EP 140S	Hardeners		
		EPC 124	EPC 2264	EPC 304IP55
	Mix Ratio, w/w	100:6.5-7.0	100:7.2-7.8	100:7.2-7.8
	Mix Viscosity@ 25°C, mPa*s	8000-12000	8000-12000	6000-10000
	Gel Time @ 25°C, (100g), min	100-150	180-200	150-180
	Typical Curing Schedule	24hr/RT	24hr/RT + 4hr/80°C	24hr/RT
Cured Properties	HDT*, °C	60	108	86
	Tg*, °C	74	115	95
	Hardness, Shore D	90	90	90
	Tensile Strength, MPa	38	43	40
	Tensile Elongation, %	0.7-1.0	0.5-0.7	0.7-1.0
	Thermal Conductivity, W/m-K	1.0-1.2		
	Service Temperature, °C	-40÷ 100	-40÷ 160	-40÷ 130

*) The samples were tested after post-curing 3hr at 120°C

Storage and Handling

The shelf life of the EP 140S 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

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