

Technical Data:

Issued: Nov. 2007
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EP 520/EPC 520

Low Viscosity Room Temperature Curing Epoxy

Product Description

EP 520/EPC 520 is a clear, low viscosity, two component epoxy compound designated for composite materials used in aviation and aerospace, and industrial composites. EP 520 exhibits high temperature resistance, excellent mechanical properties and high chemical resistance.

Features & Benefits

- Low viscosity
- Long pot life at RT
- Excellent mechanical properties
- High temperature resistance
- Rapid cure at high temperature

Applications

Manufacturing of Glass/Epoxy or Carbon/Epoxy composite parts using Resin Transfer Molding, wet lay-up and infusion processes at low to moderate temperature.

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.

Base Resins	Base (A) Hardener (B)	Epoxy Resins Amines
Appearance/Color	Base (A) Hardener (B)	Clear Clear
Viscosity @ 25°C, mPa*s ASTM-D-2196	Base (A) Hardener (B)	1400-1800 40-50
Density @ 25°C, g/cm ³	Base (A) Hardener (B)	1.17 ± 0.03 0.94 ± 0.02
Mix Ratio A:B, (w/w)		100:30
Mix Viscosity @ 25°C, mPa*s ASTM-D-2196		500-700
Work life, @ 25°C, min		60-90
Gel-time, 100g @ 25°C, min		120-150

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Curing Schedule	24hr/23°C + 8hr/60°C or 24hr/23°C + 4hr/100°C
Hardness , ASTM-D-2240, Shore D	80-85
Tensile Strength , ASTM-D-638, MPa	60-80
Tensile Elongation , ASTM-D-638, %	2.0-6.0
Flexural Strength , ASTM-D-790, MPa	100-140
Flexural Modulus , ASTM-D-790, MPa	2000-3000
Compressive Strength , ASTM-D-695, MPa	1100-1200
HDT , (0.455MPa), ASTM D-648, °C	114
Glass Temperature , ASTM-3418, °C	119
Service Temperature , °C	-40 to 150

Storage and handling

The shelf life of the EP 520 is 12 months at 16-35°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 to 25L containers

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.