Technical Data Sheet

Epoxy Resin LV50

Revision: September 2025

Product Description

LV50 is a low-viscosity liquid epoxy resin. It is composed of bisphenol-A diluted with a chemical reactive diluent, and therefore, the reduced viscosity would be desirable. Reduced viscosity makes the resin easier to mix, spread, and apply over the surfaces, leading to better penetration into porous substrates (e.g., concrete and wood). Furthermore, adjustable curing characteristics can modify pot life, exothermic, and flexible properties. This diluted resin can be cured with polyamine hardeners like Metacure® PC205t.

Application Areas

The LV50 is highly suitable for decorative applications, which grant leveling, clarity, and gloss. This resin is also used for room temperature-cured applications, including flooring material, mortar, grout, reinforcements, glues, compounds & polishes, besides laminates (electrical & electronic devices). When this product cures with specialized hardener Metacure® PC205t, high toughness properties, i.e., excellent hardness-flexibility, besides high elongation and stiffness features have been achieved.

Benefits

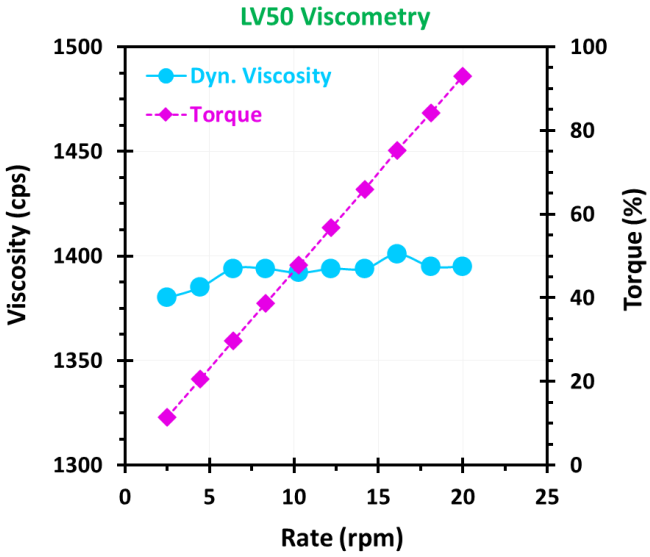
- Low viscosity
- Good transparency
- High Mechanical Properties
- Reasonable cost

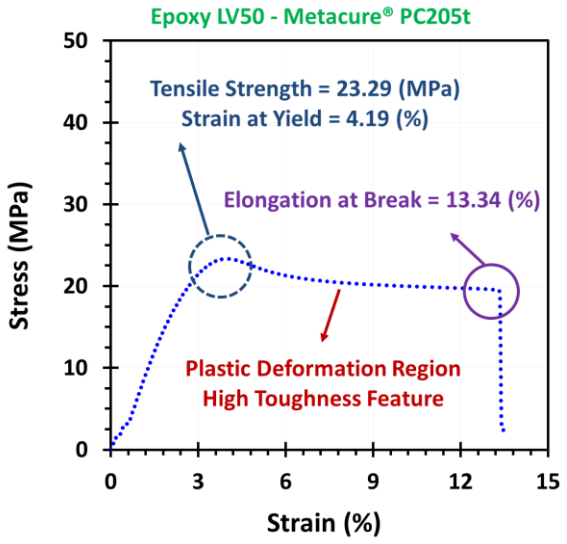
Decorative Application Advantages

- Self-leveling coatings: smooth, glossy finish without bubbles.
- Artistic epoxy pours: improved flow for resin art, countertops, and tabletops.
- Thin-film coatings: avoid orange peel effect.
- Color effects: better pigment dispersion and marbling in decorative pours.

Safety, Storage & Handling

The LV50 should be stored in conditions so that moisture is excluded, preferably in the original containers kept tightly closed. The storage life at normal temperatures is at least one year. If LV50 develops a haziness or crystallizes on storage, this can be restored to its original condition by warming to 45-50 °C with stirring.





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Product Specification

Property	Unit	Value	Test Method
Appearance	-	Colorless Transparent Liquid	Visual
Color	APHA	< 100	ASTM D1209
Viscosity (23 °C, L2 Spindle, 2-20 rpm)	mPa.s	1300 – 1400	ASTM D445
Density at 25°C	kg/l	1.15 – 1.19	ASTM D792
Epoxy Equivalent Weight (EEW)	g/eq	165 – 170	ASTM D1652
Recommended Proportion with Metacure® PC205t Hardener (AHEW=102-105)	Phr*	60 – 62	calculated
Mechanical Properties (with Metacure® PC205t): ➢ **Tensile Strength** ➢ **Elastic Modulus** ➢ **Elongation at break** ➢ **Toughness**	 MPa MPa % J	 22 – 27 1000 – 1200 11 – 15 13 – 16	ASTM D638
Pot life (with PC205t); 25±1 °C, 50 g	min	72 – 76	-

*phr: parts per hundred of resin

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