Technical Data Sheet

Polyamine Curing Agent Metacure® PC205t

Revision: September 2025

Product Description

Metacure® PC205t is a low-viscosity, modified cycloaliphatic polyamine curing agent designed for decorative epoxy systems. It has a low viscosity in the form of a clear, colorless liquid possessing high gloss and transparency. It reacts with epoxy resins (i.e., EPIRAN 06 EXC & SPL, LV50, and SLV20) at room temperature to provide a robust cross-linked 3D network. Its cycloaliphatic structure imparts stable reactivity, higher mechanical strengths, better moisture and thermal resistances, and lower VOC emissions than traditional hardeners.

Application Areas

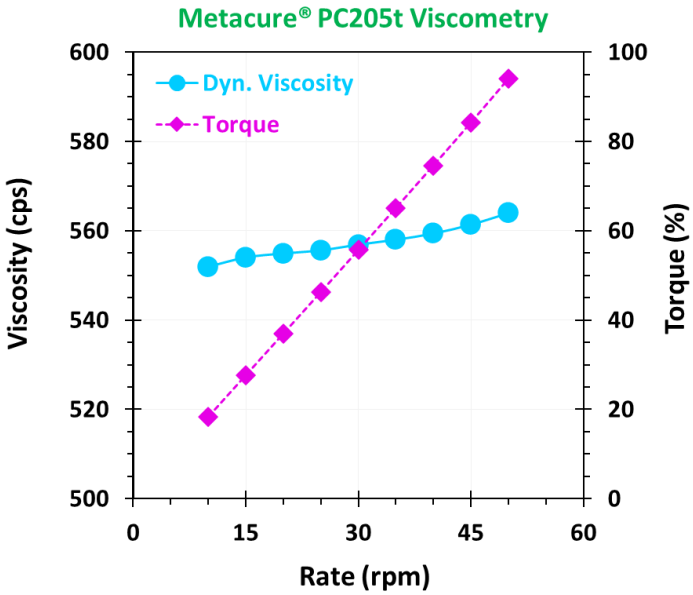
Metacure® PC205t is used in the formulation of room-temperature curing compositions, especially where low viscosity, high transparency/gloss, and strong performance are required, such as industrial floorings, tank linings, solvent-free coatings, concrete adhesives, laminates (where low-temperature curing and moisture resistance are critical), etc. In comparison with Metacure® PC205, this grade of hardener is also applicable in decorative-related industries (especially with LV50 and/or SLV20 epoxy resins) due to high strength, greater toughness, and transparency, with less color.

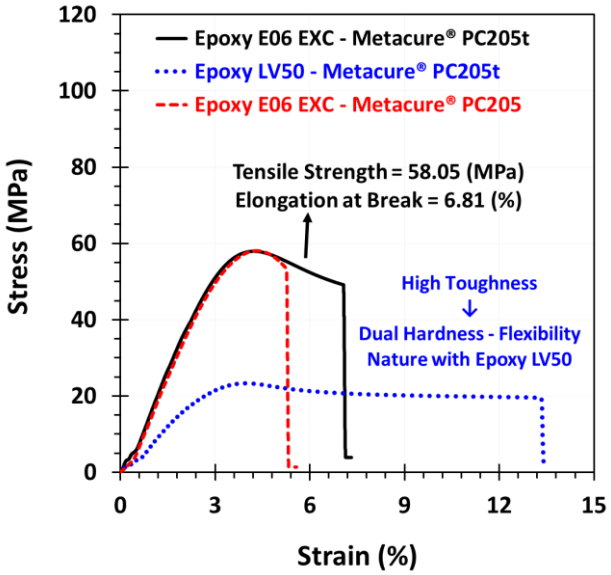
Benefits

- Low viscosity
- Excellent surface appearance (colorless)
- High mechanical performance
- High hardness-flexibility properties
- Suitable blush and moisture resistance
- Low VOC
- High gloss and transparency

Safety, Storage & Handling

Metacure® PC205t is slightly hygroscopic and should be stored at room temperature in conditions such that moisture is excluded, in the original containers kept tightly closed. Under these conditions, the shelf life should be a minimum of two years from the date of certification.





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All statements, technical information and recommendations contained herein are based on tests and data which we believe to be reliable, but the accuracy or completeness thereof is not guaranteed and no warranty of any kind is made with respect thereto.

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Product Specification

Property	Unit	Value	Test Method/Standard
Viscosity (23 °C, L2 Spindle, 10-50 rpm)	mPa.s	500 – 600	ASTM D445
Color	Gardner	Max. 1	ASTM D1544
Basic Nitrogen Content	% m/m	6.0 – 8.0	ASTM D2896
Amine Hydrogen Equivalent Weight (AHEW)	g/eq	102 – 105	ISO 9702
Density at 25°C	kg/l	1.02 – 1.04	ASTM D792
Recommended Proportion with Epoxy Resins ➢ **LV50 (EEW=178)** ➢ **SLV20 (EEW=189)** ➢ **EPIRAN 06 (EEW=190)**	phr*	 59 56 55	Calculated
Mechanical Properties (with EPIRAN 06): ➢ **Tensile Strength** ➢ **Elastic Modulus** ➢ **Toughness** ➢ **Elongation at Break**	 MPa MPa J %	 57 – 60 2000 – 2200 16 – 19 5 – 8	ASTM D638
Mechanical Properties (with Epoxy LV50): ➢ **Tensile Strength** ➢ **Elastic Modulus** ➢ **Toughness** ➢ **Elongation at Break**	 MPa MPa J %	 23 – 27 1100 – 1300 13 – 16 10 – 13	ASTM D638
Pot life at 25±1 °C, 50 g ➢ **LV50 (EEW=178)** ➢ **SLV20 (EEW=189)** ➢ **EPIRAN 06 (EEW=190)**	min	 72 – 76 76 – 80 36 – 40	-

*phr: parts per hundred of resin

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