Technical Data Sheet

Polyamine Curing Agent Metacure® SH551

Revision: September 2025

Product Description

Metacure® SH551 is a low-viscosity, light-colored modified amine-based curing agent, as designed for room-temperature curing usages, having superior mechanical properties (tensile and compressive strengths) and light color transparency.

Application Areas

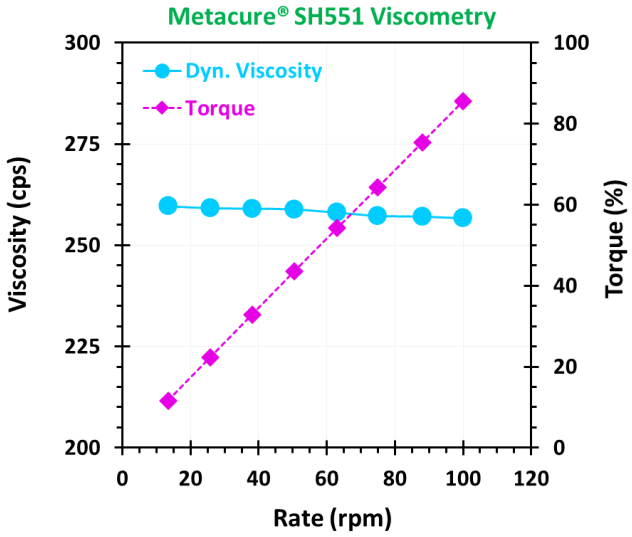
The Metacure® SH551 is used in the formulation of room-temperature curing materials possessing solid- and/or solution-based epoxy resins such as EPIRAN 06 EXC & SPL and KER 828. It is suitable for constructing and industrial applications, including industrial floor toppings, grout, reinforcements, high-build glaze, and sealer, as well as storage tank (middle)coatings and linings. Especially, due to its high compressive strength and proper pot life, the Metacure® SH551 is used in many static or dynamic precision grouting applications.

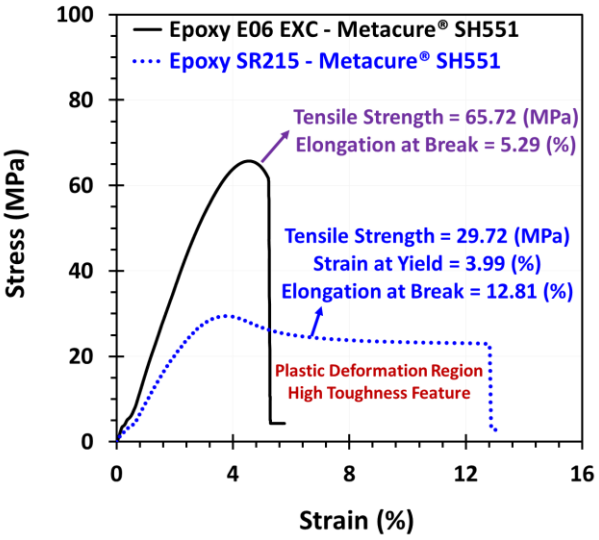
Benefits

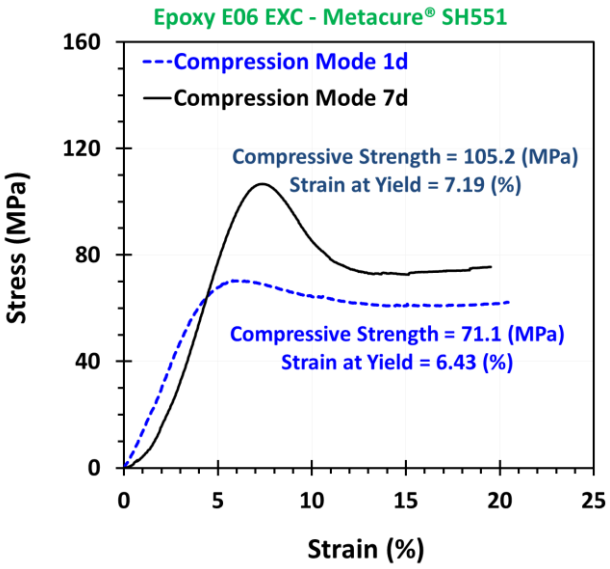
- Low Viscosity
- Good leveling
- High gloss of a thin film layer
- Suitable chemical and mechanical resistance
- High compressive strength (increasing trend by curing time)

Safety, Storage & Handling

The Metacure® SH551 should be stored at room temperature, in the original containers kept tightly closed and away from direct sunlight. Under these conditions, the shelf life should be a minimum of 12 months from the date of production.







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Product Specification

Property	Unit	Value	Test Method/Standard
Color	Gardner	≤ 3	ASTM D1544
Density at 25°C	kg/l	1.01 – 1.03	ASTM D1457
Viscosity (23 °C, L2 Spindle, 10-100 rpm)	mPa.s	250 – 300	ASTM D445
Amine Hydrogen Equivalent Weight (AHEW)	g/eq	93 – 95	ISO 9702
Recommended Proportion with EPIRAN E06 (EEW=185-192)	Phr*	48 – 52	Calculated
Mechanical Properties (with EPIRAN 06 EXC):			
Tensile Mode			
➢ **Tensile Strength**	MPa	60 – 66	ASTM D638
➢ **Elastic Modulus**	MPa	2100 – 2300	
➢ **Toughness**	J	14 – 16	
➢ **Elongation at Break**	%	4.5 – 6	
Compression Mode			
➢ **Compressive Strength**			ASTM D695
1 day	MPa	70 – 80	
7 days	MPa	100 – 110	
➢ **Fracture Force**			
1 day	kN	50 – 56	
7 days	kN	67 – 72	
Mechanical Properties (with Epoxy SR215):			
➢ **Tensile Strength**	MPa	28 – 31	ASTM D638
➢ **Elastic Modulus**	MPa	1200 – 1400	
➢ **Toughness**	J	15 – 18	
➢ **Elongation at Break**	%	9 – 14	
Pot life at 25±1 °C, 50 g	min	40 – 43	-

*phr: parts per hundred of resin

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