

Shenzhen Jianghe New Materials Technology Co.,Ltd

Technical Data Sheet (TDS)

Doc No.: EPR-318A-9T-2+218B-21M-

TDS-004

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318A-9T-2+218B-21M

Typical Properties

Epoxy Resin 318A-9T-2 + 218B-21M is an environmentally compliant two-component epoxy adhesive formulated to cure under both room temperature and low-temperature conditions. The system exhibits excellent flow characteristics with self-debubbling properties, high clarity without surface ripples, and superior yellowing resistance. It cures to a high-gloss finish and is suitable for either room temperature or accelerated heat curing processes.

Applications

Epoxy Resin 318A-9T-2 + 218B-21M is specifically engineered for module potting, mold casting, and provides reliable insulation, moisture-proof encapsulation, and confidential protection for electronic components.

Physical & Chemical Properties

Property	Part A: 318A-9T-2	Part B: 218B-21M
Color	Colorless Transparent	Colorless Transparent
Density (g/cm ³)	1.07±0.05	0.95±0.03
Viscosity (mPa·s)	700±100	100±50
Brookfield DV2TRV Viscometer		25°C
Mix Ratio (by Weight)		2 : 1

Properties of Cured Material

Property	Base + Curing Agent
Physical State	Liquid
Viscosity (mPa·s)	400±200mPa.S
Brookfield DV2TRV Viscometer	25°C
Pot Life (100g mass @ 25°C)	1h
Brookfield DV2TRV Test, Maximum Viscosity 800mPa·s	
Dosage	280-350 g/m ² (varies with substrate)

Processing & Curing Parameters

Initial Cure (100g)	Surface dry in 18-24h (ambient)
Full Cure (100g)	48-72 hours at Room Temperature (RT)
Service Temperature Range	0°C to 80°C

Application Instructions

Working Conditions: Ensure the mixing container is clean. Measure Components A and B strictly by the designated weight ratio. After accurate weighing, stir the mixture thoroughly in a clockwise direction, scraping the inner walls of the container. Allow the mixture to rest for 3-5 minutes before application.

Precautions

- Dosage Control:** Prepare the adhesive quantity based on the pot life and application rate to avoid waste.
- Low-Temperature Handling:** When the ambient temperature falls below 15°C, preheat Component A to 30°C before mixing to facilitate easier application, as the viscosity increases in cold conditions.
- Storage After Use:** The container must be sealed immediately after use to prevent moisture absorption, which can render the product unusable.
- High-Humidity Curing:** At relative humidity levels above 85%, the cured surface is prone to absorbing moisture from the air, forming a whitish haze. Therefore, room

temperature curing is not recommended under these conditions; heat-assisted curing is advised.

Test Result

Hardness	Shore A	75±5D
Heat Deflection Temperature	°C	60
Water Absorption	%	<0.1

Save

Freeze-Sensitive	Yes	
Moisture-Sensitive	Resin	Curing Agent
	No	Sensitive
Recommended Storage Temperature	15°C to 25°C (Must not fall below 10°C or exceed 50°C.)	
Shelf Life	6 months in original, unopened packaging	
Packaging	Resin	Curing Agent
	5 kg pail	5 kg pail

Note: The performance data provided above are typical values obtained under laboratory conditions of 25°C and 70% relative humidity. They are for reference purposes only.