

Shenzhen Jianghe New Materials Technology Co.,Ltd

Technical Data Sheet (TDS)

Room 1008, Building 1, Cofco Yunjing, Martin Street, Heshui Kou Community, Guangming District, Shenzhen, China, 518107
Tel: +86-13418798686 | Email: zigang.lei@jhresin.cn
Website: <https://jhresin.en.alibaba.com/>

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588AB-5

Typical Properties

Epoxy Resin 588AB-5 is a black potting compound formulated to cure under both room temperature and low-temperature conditions. It features good flowability, self-debubbling properties, and can be cured at ambient temperature or with heat assistance.

Applications

Epoxy Resin 588AB-5 is specifically designed for electronic component potting, power supply encapsulation, mold casting, as well as insulation, moisture-proof potting, and secure shielding of other electronic parts.

Physical & Chemical Properties

Property	Part A: 588A-5	Part B: 588B-1
Color	Black	Brown and Transparent
Density (g/cm³)	1.17±0.05	0.95±0.03
Viscosity (mPa•s)	9000±2000	200±50
Brookfield DV2TRV Viscometer		25°C
Mix Ratio (by Weight)		5 : 1
Mix Ratio (by Volume)		4.1 : 1

Properties of Cured Material

Property	Base + Curing Agent
Physical State	Liquid
Viscosity (mPa·s)	1000±300mPa.S
Brookfield DV2TRV Viscometer	25°C
Pot Life (100g mass @ 25°C)	20±5 min
Dosage	280-350 g/m ² (varies with substrate)

Processing & Curing Parameters

Initial Cure (50g, 25°C)	Approx. 1 hours at Room Temperature (RT)
Full Cure (50g, 25°C)	24 hours at Room Temperature (RT)
Service Temperature Range	-10°C to 120°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 D	85±5
Dielectric Strength	KV/mm	22
Flexural Strength	Kg/mm ²	28
Volume Resistivity	Ohm ³	1×10 ¹⁵
Surface Resistivity	Ohm ²	5×10 ¹⁵
Thermal Conductivity	W/M.K	0.60
Dielectric Loss	1KHZ	0.42
Heat Deflection Temperature	°C	140
Water Absorption	%	<0.15
Compressive Strength	Kg/mm ²	11.3

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.