

Araldite® AW 8545-1 Resin / Hardener HW 8545-1 Epoxy Adhesive

Product Description

Araldite® AW 8545-1 Resin / Hardener HW 8545-1 epoxy adhesive is a two-component toughened system for bonding metals, including oily metals, as well as a variety of other substrates. It has a 1:1 mix ratio for ease of use.

Features

- Metal to metal bonding
- Good flexibility
- Low expansion/contraction coefficient
- The liquid consistency handles and spreads easily
- Especially developed to provide a long working life
- Can be used in 1:1 ratio by volume

Typical Properties*

Property	Method	Araldite® AW 8545-1 Resin	Hardener HW 8545-1	Mixed System
Appearance	Visual	Light Blue	Light Yellow	Light Green
Density, g/cm ³	ASTM D792	1.33 ± 0.02	1.42 ± 0.02	1.38 ± 0.02
Viscosity, cP	ASTM D2393	35,500 ± 2,000	51,000 ± 2,000	43,300 ± 2,000

*Typical properties are based on Huntsman's test methods. Copies are available upon request.

Processing

Mix Ratio

Product	Parts by weight	Parts by volume
Araldite® AW 8545-1	100	100
Hardener HW 8545-1	100	100

Processing Data

Parameter	Value
Gel time 100g at 77°F (25°C) 20g at 212°F (100°C)	2 hours
	9.5 minutes
Typical cure cycles	24 hours at 77°F (25°C)
	15 minutes at 212°F (100°C)

Typical Physical Properties^a

Unless otherwise stated, the data were determined with typical production batches using standard test methods. They are typical values only, and do not constitute a product specification.

Property	Test Method	Results
Ultimate Tensile Strength, psi (MPa)	ASTM D412	5,075 (35)
Elongation, %	ASTM D412	20
Lap Shear Strength (primed Al), psi (MPa) at RT after 24 hours at RT after 7 days at 179°F (82°C) after 24 hours at RT after 7 days water immersion at 100°F (38°C)	ASTM D1002	3,019 (21) 3,632 (25) 540 (3.7) 3,126 (22)
T-Peel, Al-Al Honeycomb, pli (N/mm)	ASTM D1876	7.9 (1.38)
Tg, DMA (E" peak), °F (°C)	ASTM D4065	135 (57)
Hardness, shore D	ASTM D2240	80
Read-through ^b	Visual	None
CTE (TMA), in/in/°F (Alpha 1, m/m/°C)	--	83x10 ⁻⁶ (150)

(a) Tested at 77 °F (25 °C), unless otherwise noted. Not for specification purposes

(b) Adhesive applied at 0.025 to 0.030 inch (0.6 to 0.8mm) thickness on 12 inch x 12 inch x 0.040 inch (30.5 cm x 30.5 cm x 1.0 mm) primed aluminum panels with 0.920 inch (23 mm) thickness aluminum honeycomb sandwiched between. After cooling to room temperature, panel is viewed to observe the reflected light on the surface to detect aberrations (Read-Through) in surface caused by adhesive contraction during the cooling process.

Storage

Araldite® AW 8545-1 Resin / Hardener HW 8545-1 should be stored in a dry place, in the sealed original container, at temperatures between 2°C and 40°C (36°F and 104°F). The product should not be exposed to direct sunlight. Under these storage conditions, this product has a shelf life of **3 years** from date of manufacture.

Precautionary Statement

Huntsman Advanced Materials Americas LLC maintains up-to-date Safety Data Sheets (SDS) on all of its products. These sheets contain pertinent information that you may need to protect your employees and customers against any known health or safety hazards associated with our products. Users should review the latest MSDS to determine possible health hazards and appropriate precautions to implement prior to using this material.

First Aid!

Refer to SDS as mentioned above.

KEEP OUT OF REACH OF CHILDREN

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