

ARALDITE® AW 9102 CI / HW 9102 CI

Product Description

ARALDITE® AW 9102 CI /HW 9102 CI is a multipurpose, two component, room temperature curing adhesive of high strength and toughness. It is suitable for bonding a wide variety of metal, aluminum honeycomb, ceramics, sandstone, fireproof panel and most other materials in common use. It is a versatile adhesive for the floor, roof, barrier wall in transportation as well as most honeycomb curtain wall application.

Features

- Multi-purpose & bonds a wide variety of materials in common use
- Long work life
- Low shrinkage
- Good heat resistance
- EN45545-2: 2013: R1 / HL3

Typical Properties

Property	ARALDITE® AW 9102 CI	ARALDITE® HW 9102 CI	Mixed System
Appearance	Pale	Pale Yellow	Pale Yellow
Density, g/cm ³	ca. 1.41	ca. 1.2	ca. 1.33
Viscosity @ 25°C, cP	10,000 - 17,000	8,000 – 16,000	8,000-20,000
Pot Life @ 25°C, 100 g, min	--	--	ca. 80

*Properties are based on Huntsman test methods. Copies are available upon request

Processing

Mix ratio

Product	Parts by weight	Parts by volume
ARALDITE® AW 9102 CI	100	100
ARALDITE® HW 9102 CI	40	47

Pretreatment

The strength and durability of a bonded joint are dependent on proper treatment of the surfaces to be bonded. At the very least, joint surfaces should be cleaned with a good degreasing agent such as acetone, iso-propanol (for plastics) or other proprietary degreasing agents in order to remove all traces of oil, grease and dirt. Low grade alcohol, gasoline (petrol) or paint thinners should never be used. The strongest and most durable joints are obtained by either mechanically abrading or chemically etching (“pickling”) the degreased surfaces. Abrading should be followed by a second degreasing treatment.

Application of adhesive

The resin/hardener mix may be applied manually or robotically to the pre-treated and dry joint surfaces. Huntsman's technical support group can assist the user in the selection of a suitable application method as well as suggest a variety of reputable companies that manufacture and service adhesive dispensing equipment. A layer of adhesive 0.05 to 0.10 mm thick will normally impart the greatest lap shear strength to the joint. Huntsman stresses that proper adhesive joint design is also critical for a durable bond. The joint components should be assembled and secured in a fixed position as soon as the adhesive has been applied. For more detailed explanations regarding surface preparation and pre-treatment, adhesive joint design, and the dual syringe dispensing system, visit www.araldite2000plus.com.

Equipment Maintenance

All tools should be cleaned with hot water and soap before adhesives residues have had time to cure. The removal of cured residues is a difficult and time-consuming operation. If solvents such as acetone are used for cleaning, operatives should take the appropriate precautions and, in addition, avoid skin and eye contact.

Typical Physical Properties

Unless otherwise stated, the figures given below were all determined by testing standard specimens made by lap jointing 4.5 x 1 x 0.063 in (114 x 25 x 1.6 mm) strips of aluminum alloy. The joint area was 0.5 x 1 in (12.5 x 25 mm) in each case.

The figures were determined with typical production batches using standard testing methods. They are provided solely as technical information and do not constitute a product specification.

Samples were cured at 158 °F (70 °C) for 2 hours and tested at 73 °F, unless otherwise stated.

Property	Value	Test Method
Lap shear strength, aluminum, psi	2900	ISO 4587
Lap shear strength, 45# steel, psi	3625	ISO 4587
Roll peel test, N*mm/mm	45	ASTM D1781-98
Glass transition temperature, DSC, T _g , °F	ca. 125	Huntsman
Plane tensile strength, psi	507	GB/T 1452
T-peel strength, N/mm	3.5	ISO 11339

Storage

ARALDITE® AW 9102 CI and HW 9102 CI should be stored in a dry place, in its sealed original container, at room temperature and the components must be stored in sealed containers. The expiry date is indicated on the label.

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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