

Araldite[®] 2041 A/B Polyurethane Adhesive

Product Description

Araldite[®] 2041 A/B polyurethane adhesive is a two-part system specifically formulated for bonding plastics including polycarbonate, ABS, nylon and Metton[®] 1 with minimal substrate preparation. It also performs well when bonding primed metals. Cured Araldite[®] 2041 A/B polyurethane adhesive features good environmental stability and impact resistance. It also has been successfully used for bonding painted metals.

Applications

- Polycarbonate
- ABS
- Nylon
- Metton
- Vulcanized rubber
- Primed metals

Features

- Excellent flexibility
- Convenient mix ratio
- Bonds a wide variety of materials

Typical Properties*

Property	Araldite [®] 2041 A	Araldite [®] 2041 B	Mixed System
Appearance	White viscous liquid	Red viscous liquid	--
Density, g/cm ³	1.10	1.3	--
Viscosity at 25°C, cP	~50,000	~20,000	~50,000
Pot life at 25°C, 4 fl. oz., min	--	--	~15

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

Processing

Mix Ratio

Product	Parts by weight	Parts by volume
Araldite® 2041 A Resin	80	100
Araldite® 2041 B Hardener	100	100

Application of adhesive

The resin/hardener mix is applied with a spatula to the pretreated and dry joint surfaces. A layer of adhesive 0.002 to 0.004-inches (0.05 to 0.10-mm) thick will normally impart the greatest lap shear strength to a joint. The joint components should be assembled and clamped as soon as the adhesive has been applied. Maintain, even contact throughout suffices to ensure proper cure.

Typical Cure Cycles

Temperature	Handling strength	Minimum cure time
77°F (25°C)	4 hours	16 hours
140°F (60°C)	1 hour	2 hours
212°F (100°C)	6 minutes	10 minutes

Typical Physical Properties

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.

Unless otherwise stated, the figures given below were all determined by testing standard specimens made up by lap-jointing 4-inch x 1-inch x 0.06-inch (10-cm x 2.5-cm x 1.5-mm) strips of aluminum. The joint area was 0.5 x 1 inch (12.5 mm x 2.5 cm) in each case. Samples were cured 20 min @ 212°F.

Property	Test Method	Value
Lap shear strength, psi (MPa) Aluminum Metton®	ASTM D1002	1,450 (10) 800 (5.5)
Coefficient of thermal expansion, in/in/°C Below T _g Above T _g	ASTM E831	13.5 x 10 ⁻⁵ 23 x 10 ⁻⁵
Glass transition temperature, T _g , °F (°C)	ASTM D4065	86 (30)
Elongation at tensile break, %	ASTM D638	250
Ultimate tensile strength, psi (MPa)	ASTM D638	2,100 (14.5)
Hardness, Shore D	ASTM D2240	85

Storage

Araldite® 2041 A/B Adhesive should be stored in a dry place, in the original sealed containers, at temperatures between 5°C and 25°C. Under these storage conditions, the product has a shelf life of **1 year** (from date of manufacture). The product should not be exposed to direct sunlight.

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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