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Advanced Materials

Araldite® 252

AEROSPACE ADHESIVES

Low density, epoxy syntactic

KEY PROPERTIES

- **Room temperature cure**
- **Gap filling**
- **Easily sandable**
- **Less than 1% volatiles emitted during cure**
- **High temperature stability after room temperature cure**

DESCRIPTION

Araldite® 252 is a two component, room temperature curing, low density filler paste. It can be used as a potting compound or as an edge filler in honeycomb sandwich structures.

TYPICAL PRODUCT DATA

Property	Araldite® 252 Resin	Araldite® 252-1 Hardener	Mixed syntactic
Colour (visual)	blue	off white	blue
Specific gravity	ca. 0.65	ca. 0.65	ca. 0.65
Consistency at 25°C	non flow paste	non flow paste	non flow paste
Gel time (100 g at 25°C) mins	-	-	60

PROCESSING

Pretreatment

The strength and durability of a bonded joint are dependant 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 or other proprietary degreasing agents in order to remove all traces of oil, grease and dirt. 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.

Mix ratio	Parts by weight	Parts by volume
Araldite® 252 Resin	100	100
Araldite® 252-1 Hardener	40	40

The resin and hardener should be blended until they form a homogeneous mix.

Pot life

Due to the exothermic reaction between the two components the pot life is, to some extent, dependent on the quantity mixed and the shape of the container. Use a shallow container to extend pot life:

As an approximate guide
For a 50g mix, pot life at 25°C is 2 hours
For a 100g mix, pot life at 25°C is 1½ hours

Application

Eliminate voids by working the mixed resin into place using a trowel or spatula.

Recommended cure cycle

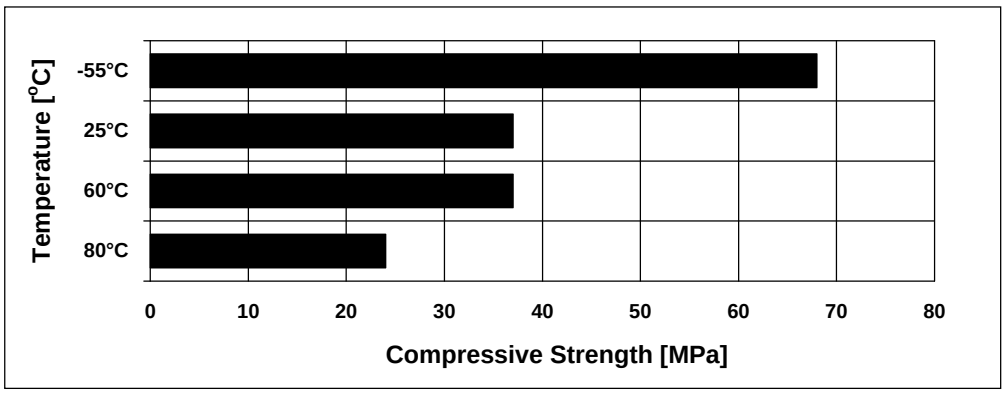
After 16 hours at 22°C the material will have hardened sufficiently to be handled.
Maximum compression strength is obtained after 3 days at 22°C.
Cure may be accelerated by heating. A cure of 2 hours at 70°C is sufficient to fully harden Araldite 252.

TYPICAL CURED PROPERTIES

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.

Test	Units	Results	Test method
Compressive strength at 22°C	MPa	35	-
Compressive modulus at 22°C	GPa	1.4	-
Weight change immersion 24 hours at 25°C in water	%	+1.3	-

Variation of compressive strength with temperature



Flammability characteristics
Test Method : Bunsen Burner Test, Vertical (according to FAR Part 25, Appendix F)
Cured 3 days at 22°C

	Unit	12s Ignition Time
Burn length	mm	44
After flame time	s	10
After flame time of chips	s	0

STORAGE

Araldite® 252 may be stored for up to 2 years at 25°C, provided that the components are stored in their original sealed containers. The expiry date is indicated on the label.

HANDLING PRECAUTIONS

Caution

Our products are generally quite harmless to handle provided that certain precautions normally taken when handling chemicals are observed. The uncured materials must not, for instance, be allowed to come into contact with foodstuffs or food utensils, and measures should be taken to prevent the uncured materials from coming in contact with the skin, since people with particularly sensitive skin may be affected. The wearing of impervious rubber or plastic gloves will normally be necessary; likewise the use of eye protection. The skin should be thoroughly cleansed at the end of each working period by washing with soap and warm water. The use of solvents is to be avoided. Disposable paper - not cloth towels - should be used to dry the skin. Adequate ventilation of the working area is recommended. These precautions are described in greater detail in the Material Safety Data sheets for the individual products and should be referred to for fuller information.

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