

Structural Adhesives

Aerospace Adhesives Epocast® 1638 A/B Low density epoxy syntactic

- Key properties**
- Self extinguishing
 - Quick setting
 - Extrudable, non flowing after application

Description Epocast 1638 A/B is a low viscosity, self extinguishing, epoxy syntactic designed for potting fasteners in honeycomb structures. It is easily extruded through a 3mm nozzle orifice, but is non flow after application. Epocast 1638 A/B sets quickly at room temperature giving productivity benefits.

Typical product data

Property	Epocast 1638 A	Epocast 1638 B	Mixed Syntactic	Test Method
Colour (visual)	off white	amber	off white	visual
Specific gravity	ca.0.6	ca.1.0	ca.0.7	ASTM-D-1622
Viscosity (Pas) at 25°C	paste	ca.0.4	paste	ASTM-D-2196
Gel time (50 gm at 25°C) mins	-	-	ca.15	ASTM-D-2471

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
Epocast 1638 A	100	-
Epocast 1638 B	13	-

Epocast 1638 A/B is available in preweighed Semco cartridges for ease of mixing and application.

Recommended cure schedules

24 hours at 25°C, the cure may be accelerated by heat, e.g. 5 hours at 50°C after room temperature gelation.

Equipment maintenance

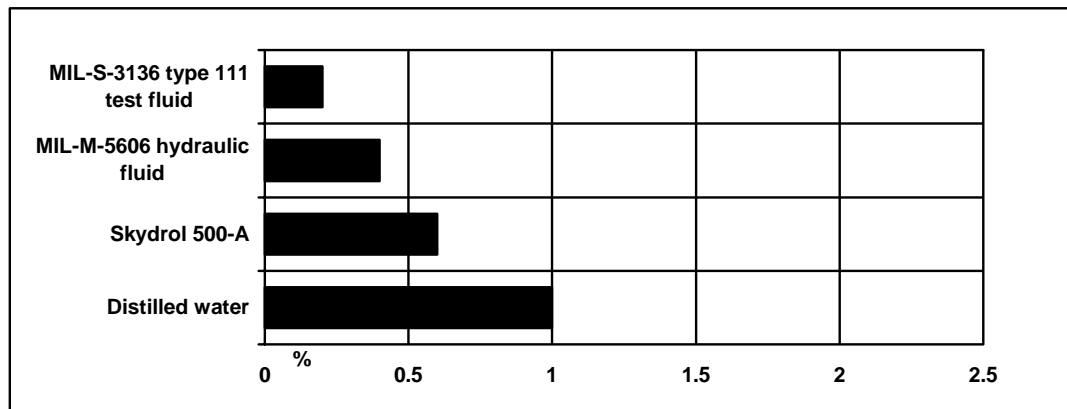
All tools should be cleaned before adhesives residues have had time to cure. The removal of cured residues is a difficult and time-consuming operation. If solvents such as acetone are used for cleaning, operatives should take the appropriate precautions and, in addition, avoid skin and eye contact.

Typical 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.

Weight gain on immersion after 24 hours at 25°C

Test method ASTM-D-543



Property	Units	Results	Test method
Compressive strength at 25°C	MPa	55	ASTM-D-695
Compressive modulus at 25°C	GPa	2.5	ASTM-D-695
Tensile lap shear etched aluminium/aluminium	MPa	6.9	ASTM-D-1002
Flammability			BMS -52-28/FAR 25.853a
- self extinguishing time	secs	1	
- burn length	mm	75	

Storage

Epocast 1638 A/B may be stored for at least 6 months at 6-28°C, provided 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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All recommendations for the use of our products, whether given by us in writing, verbally, or to be implied from the results of tests carried out by us, are based on the current state of our knowledge. Notwithstanding any such recommendations the Buyer shall remain responsible for satisfying himself that the products as supplied by us are suitable for his intended process or purpose. Since we cannot control the application, use or processing of the products, we cannot accept responsibility therefor. The Buyer shall ensure that the intended use of the products will not infringe any third party's intellectual property rights. We warrant that our products are free from defects in accordance with and subject to our general conditions of supply.

**Duxford, Cambridge
England CB2 4QA**

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**Tel: +44 (0) 1223 832121
Fax: +44 (0) 1223 493322
www.araldite.com**