

Technical Data Sheet

ARO-BOND® 947

MCPU ADHESIVE



ARO-BOND® 947 IS A SINGLE COMPONENT MOISTURE CURING POLYURETHANE WOOD ADHESIVE WITH EXCELLENT WATER RESISTANT CHARACTERISTICS.

ARO-BOND® 947 MEETS THE REQUIREMENTS OF BS EN204 CATEGORY D4 FOR WATER RESISTANCE.

Aro-Bond® 947 can be used for many applications where gap filling properties, high strength and a high level of water resistance is required. Aro-Bond® 947 has been successfully used for bonding many types of woods, plastic foams and other insulating materials to a wide variety of both rigid and flexible facing materials, including wood, metals and plastics. Aro-Bond® 947 has also been successfully used for bonding Accoya.

BENEFITS

- Excellent water resistance - EN204 D4.
- Quick curing.
- Excellent bond strength on hard and soft woods.
- Bonds many substrates including non-porous substrates.
- Bonds Accoya.

AVAILABLE COLOURS

Brown

TECHNICAL DATA

Brookfield viscosity:	3500 mPAs
Solids content:	100%
Specific gravity:	1.1

AVAILABLE SIZES

Polybottle:	1.1kg
Jerrican:	5.6kg
Jerrican:	22kg

CURING TABLE

Temperature (°C):	15	20	25
Open time (minutes):	10	6	3
Cure time (minutes):	30	20	10

PREPARATION AND APPLICATION

Ensure that the surfaces to be bonded are smooth, clean and free from dust or other deposits. Metals should be stored in a warm environment prior to bonding to avoid chilling of the glue line, which leads to extended cure times

Most pre-finished metals have backing coats which are well suited to bonding. Some grades of Aluminium, Galvanised Steel and plastics however can be difficult to bond and may require the use of a primer. A test panel should always be prepared when new materials are to be used to establish the adhesives compatibility.

The adhesive is applied by trowel, notched scraper, hand roller coater or an automatic bead applicator, to one surface only of each glue line. The amount required will vary according to the porosity/ smoothness of the substrates and the means of application, but will normally be in the range 80- 140 per m²

Once the adhesive has been applied it should be over-misted with water (approximately 5-15% of water based on the adhesive coating weight is the optimum amount, excessive amounts of water should be avoided), the panel is then assembled as soon as possible, to minimise water evaporation and placed under pressure within the open time of the adhesive.

The pressure required will depend to a great extent on the nature of the substrates but is usually in the range 0.5 to 0.9 bar. Allow 24 hours for full strength to develop. Higher levels of water resistance form more slowly and should be tested not earlier than 7 days after bonding.

HANDLING AND STORAGE

Aro-Bond® 947 when uncured can be removed with cleaning solvent such as Aro-Bond® 686 Solvent or Aro-Bond® 689 Solvent. Cured product will prove very difficult to remove, however, soaking in Aro-Bond® 686 Solvent overnight will soften the adhesive. Nozzles from automatic bead applicators should be immersed in a non-reactive plasticiser when not in use.

Aro-Bond® 947 is a moisture sensitive adhesive and left in contact with the open atmosphere will eventually gel. For this reason Aro-Bond® 947 is protected with a blanket of Nitrogen in the drum prior to despatch, which forms a dry, inert layer on top of the adhesive. Aro-Bond® 947 should be stored in the original containers in a cool, dry place, at a temperature range of between 5°C and 25°C. In these conditions it has a storage life of at least 3 months.

Once the container has been opened for use and the inert blanket replaced by moist air, the adhesive will have a limited life. To eliminate the moist air reacting with the adhesive a Nitrogen cylinder can be connected to the small bung hole of the drum, via suitable pressure reducing valves to give a positive pressure of 1 -2 psi.

Alternatively a desiccator can be connected to the small bung hole of the drum, which will dry the incoming air, replacing the adhesive used. A suitable desiccator with the relevant pipework can be supplied by Ureka. This will last for approximately 3 months prior to regeneration. Further information is available upon request.

If water enters the drum of adhesive, it will react giving off carbon dioxide which can cause over pressurisation of closed cans and drums.

DISCLAIMER: Due to the variation in materials likely to be handled by prospective users of this product, together with differences in production techniques and ultimate performance required, it is important that this product is thoroughly evaluated under production and end use conditions before being commercially adopted. Such an evaluation should incorporate an ageing test and this test should be repeated if the substrates on which the this product is used are changed in any way or are purchased from a different source. During the evaluation and testing of the product, it is the purchasers/end user's responsibility to carry out appropriate actions for the protection of the environment, the health and safety of its employees and purchasers of its products. No employee of Ureka Global Ltd has any authority to waive or change the forgoing provisions. The above recommendations are made in good faith for the guidance of users and are without liability. Any queries should be made in writing to the head office of Ureka Global Ltd.

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