



JESMONITE TECHNICAL DATA SHEET

JESMONITE is a non-toxic, water-based resin system that is made up of 2 parts – a mineral resin powder and an acrylic liquid. It is not the same as traditional epoxy resin because it is an opaque material that does not have a shiny surface unless it is polished, varnished or waxed. However, it is very user friendly because of its non-toxicity - it is solvent free and contains no VOCs.

JESMONITE creates surface textures beautifully when cast into moulds and jewellery mounts. It can be fragile but is reinforceable with special fibres.

Pigments can be added to it to give a range of dense opaque colours and it can be used for internal sculptures and in some jewellery applications.

PRODUCT DESCRIPTION

Jesmonite® AC300 is a water-based, two-component, acrylic polymer/mineral resin system. The system is suitable for a wide range of casting and laminating applications where the end user wants to reduce the many risks associated with conventional solvent based systems. A range of ancillary products including decorative and functional fillers, control chemicals, pigments, and glass reinforcements are also provided making the material extremely versatile. The material is designed for internal use only. The material is an economic alternative to Jesmonite AC100 where external durability is not essential.

SPECIFICATIONS

- Mix ratio 2.5:1 parts Base to Liquids ratio by weight
- Wet density 1845 kg/m³
- Dry density 1745 kg/m³
- Initial set 15 – 20 minutes (18°C, No Retarder)
- Expansion on set 0.15%

OTHER PROPERTIES

- Compressive strength 30 – 35 Mpa
- Tensile strength (UTS) 20 – 25 Mpa
- Bending elastic limit (LOP) 15 – 20 Mpa
- Bending strength (MOR) 50 – 65 Mpa
- Youngs modulus 5 – 6 Mpa
- Impact strength (Charpy) 30 KJ/m²
- Moisture movement <1%
- Fire resistance B.S.476 Part 6&7 – Class 'O'
- Freeze/Thaw resistance Excellent – Test specimens undamaged

www.resin8.co.uk | info@resin8.co.uk | 01242 603624

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APPLICATION AREAS

Jesmonite AC300 is suitable for both cast and laminated decorative mouldings, and with the inclusion of suitable glass reinforcements can be utilised for lightweight, high-impact panels. It also provides a Class 1 fire resistant surface coating for expanded foams for theme parks, theatre props, sculpture etc. The material provides users with a water-based alternative to standard Glass Reinforced Polyester for rigid moulds and tooling.

KEY ATTRIBUTES

Bulk supplied material to reduce costs and maximise transport efficiency. General purpose material with a wide range of applications.

STORAGE

As a basic rule liquid containers should be kept well sealed to prevent water evaporation and skin forming. They should be stored at a constant temperature between 5 – 25°C and used within six months. Freezing must be avoided. Base should be kept dry and stored at 5 – 25°C.

The above information and recommendations are based upon our experience and are offered merely for advice. They are offered in good faith but without guarantee, as conditions and methods of use are beyond our control. It is the responsibility of the end user to determine the suitability of the materials for the particular purpose intended.

FURTHER INFORMATION

If you have any questions don't hesitate to contact us. Please visit the web site (www.resin8.co.uk) for news of latest products.

Resin8 Craft Supplies Ltd
Unit B4, Withytree Farm
Broadway Road
Winchcombe
Gloucestershire
GL54 5NT
01242 603624
info@resin8.co.uk

www.resin8.co.uk | info@resin8.co.uk | 01242 603624

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