# **TECHNICAL DATA SHEET**

Reference: TDS-AC100-25-EW



# **AC100**

## PRODUCT DESCRIPTION

Jesmonite® AC100 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 suitable for internal use only, however, if used externally a sealer or suitable paint system is recommended to protect surface appearance.

## **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 25 - 30 MPa Tensile strength (UTS) 25 - 35 Mpa 15 - 20 Mpa Bending elastic limit (LOP) Bending strength (MOR) 50 - 65 Mpa Youngs Modulus 5-6 Mpa 30 KJ/m<sup>2</sup> Impact strength (Charpy) Moisture movement <1% EN13501-1 Fire Classification B-s1-d0

ASTM E84 Fire Classification Class 1 (Class A)

Freeze/Thaw resistance Excellent – Test specimens undamaged

Wet/Dry 50 cycles Test specimens undamaged

## **APPLICATION AREAS**

Cast and laminated decorative mouldings, and with the inclusion of suitable glass reinforcements AC100 can be used for lightweight, high-impact panels. Jesmonite AC100 provides a fire-resistant coating for many expanded foams for theme park and theatre props.

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## **KEY ATTRIBUTES**

- Solvent free
- Good abrasion resistance and impact strength
- High compressive and tensile strength
- Rapid curing and high early strength gain

## **PACKAGING**

Products are supplied in a variety of sizes dependant on location, therefore please check your local 'Official Reseller' for accurate formats or visit <u>www.jesmonite.com</u> for further information on Official Packaging.

## **FOOD SAFETY**

Jesmonite materials have not been tested for food safety.

## **COLOUR**

AC100 is a natural material therefore is subject to potential variation between batches. To ensure colour control we recommend pigmenting batches.

## **STORAGE**

For maximum efficacy products should be stored at a constant temperature of between 5 – 25°C. Keep clean, dry and away from any contaminants, powders should be kept in sealed containers. Freezing must be avoided.

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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 remains the responsibility of the end user to determine the suitability of the materials for the particular purpose intended.