
PRODUCT LIST 2021

JESMONITE
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JESMONITE AC100

Jesmonite AC100 is a water-based, modified gypsum composite material used to create decorative moulded products. Jesmonite AC100 can be cast or laminated using Jesmonite Quadaxial Glass. Jesmonite AC100 is supplied with a range of ancillary products including glass reinforcements, pigments, fillers, and control chemicals to adapt the material to the widest range of applications.

JESMONITE AC200

Jesmonite AC200 is a water-based, modified gypsum composite material which is ideally suited to making masters and prototypes prior to moulding. It sets to a hard but easily carved surface and can be shaped using a variety of tools including CNC, routers, and chisels. Jesmonite AC200 provides an adaptable, mouldable carving medium that is safe and easy to use for all modelling and prototyping applications. The master can then be moulded using a rubber moulding compounds. Jesmonite AC200 is also an excellent adhesive for polystyrene, PU tooling board, and Styrofoam board.

JESMONITE AC300

Jesmonite AC300 is a water-based, modified gypsum composite material used to create decorative moulded products. The material is an economic alternative to Jesmonite AC100. Jesmonite AC300 can be cast or laminated using Jesmonite Quadaxial Glass. Jesmonite AC300 is supplied with a range of ancillary products including glass reinforcements, pigments, fillers, and control chemicals to adapt the material to the widest range of applications.

JESMONITE AC630

Jesmonite AC630 is an acrylic polymer modified, cement-based composite. It is a shrinkage-compensated material of low permeability and is durable in all conditions of weathering. The product contains a fine decorative aggregate and powder pigments, carefully controlled to give a consistent decorative surface finish. Jesmonite AC630 can be used for a range of decorative applications that require greater dimensional stability, overall strength, and enhanced durability within extreme weather conditions. The Jesmonite AC630 technology can be utilised for fine surface detail retrieval, castings, premix flat panel and lightweight laminated applications.

JESMONITE AC730

Jesmonite AC730 is a rapid setting acrylic modified cementitious composite. It is a shrinkage compensated material of low permeability, with reduced free-lime content leading to major reductions in efflorescence in comparison with ordinary Portland cement systems. Jesmonite AC730 contains a fine decorative aggregate and powder pigments, carefully controlled to achieve a consistent decorative surface finish. Jesmonite AC730 is primarily designed for glass reinforced, lightweight, hand laminated decorative applications, but it can also be used for small decorative castings.

JESMONITE FLEX METAL GEL COATS

Jesmonite Flex Metal Gel Coats are formulated using real metal powder to create the ultimate replication of metal in moulded materials. Jesmonite Flex Metal Gel Coats are available in Bronze, Copper, Silver Bronze and Brass. They are fully compatible with Jesmonite AC730 and Jesmonite AC830 as a laminated or cast back up. The Jesmonite Flex Metal Gel Coat surface can be polished with fine grades of wire wool and polishing machinery to reveal the metallic surface.

JESMONITE AC730 FLEX LIQUID

Jesmonite Flex Liquid is a water resistant, flexible acrylic which when added to Jesmonite AC730 Base creates a material with much greater ductility than the standard Jesmonite AC730 Liquid. It is designed for both laminating and foam coating and can be used to produce lightweight, durable laminates. Mix ratios can be varied between 4:1 and 3:1, Base to liquid to achieve a variety of mix viscosities suitable for foam coating and spraying using a gravity fed spray gun.

JESMONITE AC830

Jesmonite AC830 is an acrylic polymer modified cementitious casting composite. It is a shrinkage-compensated material of low permeability and is durable in all conditions of weathering. The compound is designed for fine decorative castings and is suitable for statuary, water-features, and decorative cast objects that are durable and frost resistant. Jesmonite AC830 can be used for a range of decorative cast applications where fine surface detail retrieval, abrasion and frost resistance are essential. The Jesmonite AC830 self-levelling technology negates the need for vibration equipment for air free castings, simply brush the first layer of material onto the mould and pour the backup mixture. Jesmonite Super Plasticiser is added to the Jesmonite AC830 mixture to aid casting. Jesmonite PVA Fibres are also added to the Jesmonite AC830 mixture to give both additional strength and frost resistance.

JESMONITE RETARDER

Jesmonite material setting times can be extended by the addition of Jesmonite Retarder to increase working time. There is a Jesmonite Retarder for Jesmonite AC100, AC200 and AC300, and a separate Retarder for Jesmonite cement-based materials such as Jesmonite AC730 and AC830. Please note that the end user should perform tests in the workshop environment, as extremes of temperature and humidity can affect set times. Further information on Jesmonite Retarder addition rates can be found in the Jesmonite product User Guides.

JESMONITE THIXOTROPE

Jesmonite Thixotrope is added to Jesmonite AC100, AC200 and AC300 to adjust the mixture viscosity to the user's preference. This is particularly useful when applying a Jesmonite Gel Coat mixture into a mould. By adding Jesmonite Thixotrope it is possible to apply a controlled 1mm – 2mm Gel Coat layer of material without it running off the mould surface. This also prevents glass reinforcements from showing at the face of a laminated/glass reinforced object.

JESMONITE QUADAXIAL GLASS

Jesmonite Quadaxial Glass reinforcement is tailor made for use with Jesmonite AC100, AC200 and AC300. It is based on the latest multi-axial glass reinforcement technology; the glass reinforcement allows Jesmonite laminates to achieve a greater strength to weight ratio. It is constructed like a lace, with continuous glass strands in a four axis (multi-axial) configuration. There are very few free filaments, making the glass safe and comfortable to use. It can be accurately cut using scissors or roller cutters and will conform to even the most complex shapes.

JESMONITE AR QUADAXIAL GLASS

Jesmonite Quadaxial Glass reinforcement is also available in an Alkali Resistant form using Cem-FIL® 5325 Roving. The product is designed for use with Jesmonite AC630 and AC730 to make Glass Reinforced Cement products that are fully compliant with BS EN 1170.

JESMONITE CHOPPED STRANDS

Jesmonite Chopped Glass Strands can be added to all Jesmonite composites to give increased strength in thin section castings, and to act as a filler to assist in laminating. Jesmonite Chopped Glass Strands are available in three types: 6mm and 12mm as standard glass, and 13mm Alkali Resistant glass which are designed specifically for use with Jesmonite AC630 to create a premix. Chopped strands can also be used to add impact resistance when applying thin sections of Jesmonite to carved objects made from polystyrene.

JESMONITE PVA FIBRES

PVA fibres are added to Jesmonite AC830 as an alternative to Glass Fibres in decorative cast products such as garden ornaments and cast decorative panels. They are characterised by good adhesion and dispersion into Jesmonite AC830, and by their high tensile strength and low elongation. PVA fibres will lead to improved flexural strength and help resist cracking and surface crazing in cast products. Typical addition rates are 1% - 2% of total mix weight.

JESMONITE PIGMENTS

Jesmonite Pigments are aqueous dispersions which are compatible with a range of Jesmonite composites. When dispersed into Jesmonite materials they offer excellent saturation of colour, chemical stability, and heat stability. Jesmonite Pigments are available in 200g and 1kg bottles.

JESMONITE METAL FILLERS

Jesmonite Metal Fillers can be added to Jesmonite AC100 and AC300 composites to provide metal finishes. Jesmonite Metal Fillers can be added to the Jesmonite AC100 and AC300 Gel Coat and back up mixture for laminating and casting applications. Jesmonite Metal Fillers are available in Bronze, Copper, Brass and Silver Bronze. Please see the Jesmonite Metal Fillers User Guide for addition rates and surface finishing information.

JESMONITE HIGH-SHEAR MIXING BLADES

Jesmonite High-Shear Mixing Blades are essential for the appropriate mixing of all Jesmonite composite materials. They are specifically designed for adding Jesmonite Base to Jesmonite Liquids. The mixing action reduces air bubbles and ensures that the mix is smooth and free from lumps. Two sizes are available, 65mm and 105mm for different mixture sizes. They are made from stainless steel and attach to all conventional drills.

JESMONITE APW MOULD RELEASE WAX

Jesmonite APW Mould Release Wax offers excellent release from a wide range of rigid mould compounds including plaster, Jesmonite, GRP, metal, wood, and glass. It can also be used on production equipment such as scales and casting tables to assist in cleaning. Please note that some porous surfaces such as plaster and timber may need to be sealed before release wax is applied, and trials should be carried out to ensure that the product is suitable.

JESMONITE ACID ETCH

Jesmonite Acid Etch is used to expose the fine decorative aggregates within Jesmonite AC630, AC730 and AC830 surfaces. The acid etch removes the cement rich film from the Jesmonite product surface to reveal decorative aggregates.

JESMONITE SUPER PLASTICISER

Jesmonite Super Plasticiser is added to Jesmonite AC830 to aid the consistency of mixture whilst maximising the Base to Liquids ratio. This reduces the water/cement ratio in the system which leads to greater ultimate strengths and durability. Please see the Jesmonite AC830 User Guide for addition rate information.

JESMONITE ACRYLIC SEALER

Jesmonite Acrylic Sealer is a pure acrylic coating for Jesmonite AC100. It is durable, flexible, and UV resistant. The formulation has been improved to make the material more Matt in appearance and easier to apply by brush, roller, or spray. Dependent upon prevailing conditions, products sealed with Jesmonite Acrylic Sealer will require recoating at 6-10 year intervals.

JESMONITE PENETRATING SEALER

Jesmonite Penetrating Sealer is designed for use with all Jesmonite cement-based materials, this includes Jesmonite AC630, AC730, AC830 and Flex Metal Gel Coat surfaces. The material provides protection against water and oil and provides stain resistance against many liquids and environmental contaminants.

JESMONITE FLEXIGUARD SEALER

Jesmonite Flexiguard Sealer is a nanotechnology based invisible sealer which creates a clear, UV stable, and extremely durable surface for Jesmonite AC630, AC730 and AC830 composites. Jesmonite Flexiguard Sealer is unique in that it creates a low-energy surface that prevents soiling, mould, and fungal growth. This product, once applied, significantly reduces the need for cleaning and maintenance and is effectively permanent due to the chemical bond made with the Jesmonite substrate (subject to abrasion). It can be mist spray applied very easily almost anywhere: on site or in a manufacturing environment.

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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.

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