

WATER-BASED GLASS FIBRE SYSTEM

JESMONITE[®] MADE FROM

Jesmonite Water-based Glass Fibre System

Jesmonite is a water-based system with no harmful solvents. You can wash your brushes in water. It can even be applied directly to polystyrene. If using moulds, the lack of solvents means your moulds will last virtually indefinitely. Jesmonite AC100, AC300 and AC730 have BS 476 Part 6 and Part 7 Class 0 fire certificates so they are ideal for use in theatres and for theming applications. AC100 and AC300 both hold B-s1-d0 EN 13501-1 Fire Classification, and AC730 has an A2-s1-d0 EN 13501-1 Fire Classification. Work can be carried out almost anywhere as there are no requirements for expensive fume extraction systems. It has very little odour so staff and public can continue with little disruption. The products are supplied as a liquid and powder which are mixed together using a high shear mixing blade in an electric drill at around 1,000 rpm for about 45 seconds. The resulting mix can be poured into a mould or it can be used to form a strong laminate. The mix can be stiffened for vertical surfaces with the addition of a little Thixotrope or retarded by adding Retarder [page 132].

Safety Data

Jesmonite Acrylic Composites are classified as low hazard products with little or no toxicity. First time users should ask for safety data sheets or download them from flints.co.uk. Operatives should be provided with:

- a) Eye protection – goggles or glasses [page 362]
- b) Dust respirators [page 364]
- c) Hand protection – rubber gloves [page 365]



How much will I need?

To estimate coverage, a 5 mm thick laminated panel in Jesmonite will weigh about 8.725 kg per m² when wet and 8.25 kg per m² when dry. Therefore, a 70 kg kit will cover about 8 m².

For accurate measuring, why not buy some scales? [page 143]



JESMONITE AC100

AC100

This is harder and has a higher impact strength than AC300; it is better suited to larger structural pieces. Jesmonite recommend it for interior or exterior use, but it's best practice to use a sealer for exterior use to protect the finish. It is fire resistant, having achieved a Class 0 fire rating under UK Building Regulations BS 476 Part 6 and Part 7, and B-s1-d0 EN 13501-1. Normal casting and laminating requires a mix ratio of 2.5 parts Jesmonite powder to resin by weight. If you are using Jesmonite to coat large areas of polystyrene, use Jesmonite Retarder to increase working time. AC100 has always been the most popular system in the Jesmonite range so they have now included a new 10 kg resin so we can now offer a convenient 35 kg kit.

* Powder is supplied in bags. Resin is supplied in a 120 kg drum. Bulk quantities are sent direct to your workshop on a pallet, please allow 2-3 days. Price includes UK mainland delivery.

code	description	powder	resin	kit size	price
JESAC100175K	Small Kit	12.5kg	5kg	17.5kg	£89.95
JESAC10035K NEW	Medium Kit	25kg	10kg	35kg	£139.95
JESAC10070K	Large Kit	2 x 25kg	20kg	70kg	£262.07
JESACPOW250	Powder only	2.5kg			£14.41
JESACPOW125	Powder only	12.5kg			£38.92
JESACPOW25	Powder only	25kg			£45.00
JESAC1001	Resin only		1kg		£15.00
JESAC1005	Resin only		5kg		£54.00
JESAC10010 NEW	Resin only		10kg		£99.50
JESAC10020R	Resin only		20kg		£206.84
code	description	powder	resin	kit size	price
JESAC100420K	Bulk kit	12 x 25kg	120kg	420kg	£1,155.09
JESAC100120	Resin only		120kg		£945.88



AC100 Tea Light Holder Mini Kit

Never tried Jesmonite and want to do some sampling? These new starter kits give you all the components for you to try casting with Jesmonite with a selection of pigments on a small scale. This kit contains:

- ✓ 250g Jesmonite Base
- ✓ 100ml Jesmonite Liquid
- ✓ 2 gloves
- ✓ 2 stirring sticks
- ✓ 6 pigments 2ml
- ✓ 1 mould
- ✓ 1 pipet

As well as a step by step guide to get you going.



code

JESAC100MIC2

NEW

price

£39.00

AC100 Jesmonite Coasters Mini Kit

This kit gives you everything you need to make some Jesmonite Coasters, passive aggressively hand them out to your co workers who leave coffee rings around the workshop or start your own Etsy business.

This kit contains:

- ✓ 250g Jesmonite Base
- ✓ 100ml Jesmonite Liquid
- ✓ 2 gloves
- ✓ 2 stirring sticks
- ✓ 6 pigments 2ml
- ✓ 1 mould
- ✓ 1 pipet



code

JESAC100MINI

NEW

price

£39.00

JESMONITE AC300

AC300

A good value product which is fire resistant, having achieved a Class 0 fire rating under UK Building Regulations BS 476 Part 6 and Part 7, and B-s1-d0 EN 13501-1. Perfect for all indoor casting and laminating applications and for short-term use out-of-doors [see AC100 above for external use]. Normal casting and laminating requires a mix ratio of 2.5 parts Jesmonite Powder to Resin by weight but a mix ratio of 3:1 is often used for covering directly onto polystyrene. Sadly AC300 has been discontinued in smaller sizes but for large projects we can supply a bulk 420 kg kit of AC300 delivered on a pallet direct to your workshop. The powder on these bulk deliveries is supplied in 12 x 25 kg bags and should be used within three months. The resin is supplied in a 120 kg drum. Our price includes UK mainland delivery. Please contact customer services for lead times.



code	description	powder	resin	kit	price
JESAC300420K	Bulk Kit	12 x 25kg	120kg	420kg	£1,262.17

JESMONITE AC730 STONE FINISHES

Jesmonite AC730 Stone Finishes

Jesmonite AC730 is a fast setting acrylic-modified cement-based composite. The system is designed for glass-reinforced decorative structures, and can also be used for small castings. It is chemically compensated against shrinkage and is of low permeability. AC730 is durable in all conditions of external weathering including water features. The compound has virtually no free-lime content, and has low alkalinity, leading to major reductions in efflorescence in comparison with ordinary Portland cement systems. The material contains a fine decorative aggregate and powder pigments, carefully controlled to give a consistent decorative surface finish after treatment with a proprietary brick cleaner, Acid Etch [page 135], or vinegar for a more eco friendly option. AC730 is available in eight stone finishes [sample boxes available online] and has BS 476 Part 6 and Part 7 Class 0 fire certificates as well as A2-s1-d0 EN 13501-1 Fire Classification.

We've had lots of requests to buy the powders and resin separately for this system, so we have decided to let you pick and choose. For bulk quantities please call us for a quote.

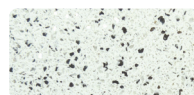
The 30kg kit consists of 25kg powder and 5kg resin. The 6kg kit consists of 5kg powder and 1kg resin.



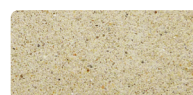
Yellow Sandstone



White Marble



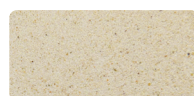
Silver/Grey Granite



Portland Stone



Bath Stone



Natural Stone



Old Terracotta



Black Charcoal

Material [Stone Finishes]	code	6kg	code	30kg
Yellow Sandstone	JESFIL136K	£31.86	JESFIL130K	£119.49
White Marble	JESFIL236K	£33.37	JESFIL230K	£122.40
Silver/Grey Granite	JESFIL336K	£33.37	JESFIL330K	£122.40
Portland Stone	JESFIL436K	£33.37	JESFIL430K	£122.40
Bath Stone	JESFIL536K	£31.86	JESFIL530K	£119.49
Natural Stone	JESFIL636K	£31.86	JESFIL630K	£119.49
Old Terracotta	JESFIL736K	£33.37	JESFIL730K	£122.40
Black Charcoal	JESFIL936K	£33.37	JESFIL930K	£122.40
Material [Stone Powders]	code	5kg	code	25kg
Yellow Sandstone	JESFIL130S	£19.25	JESFIL132S	£66.15
White Marble	JESFIL230S	£20.84	JESFIL232S	£69.21
Silver/Grey Granite	JESFIL330S	£20.84	JESFIL332S	£69.21
Portland Stone	JESFIL430S	£20.84	JESFIL432S	£69.21
Bath Stone	JESFIL530S	£19.25	JESFIL532S	£66.15
Natural Stone	JESFIL630S	£19.25	JESFIL632S	£66.15
Old Terracotta	JESFIL730S	£20.84	JESFIL732S	£69.21
Black Charcoal	JESFIL930S	£20.84	JESFIL932S	£69.21
Material [Resin]	code	weight	price	
Resin	JESFILRES1	1kg	£14.29	
Resin	JESFILRES5	5kg	£59.63	

Jesmonite AC730 Flex Resin

When working with especially large moulds, makers sometimes prefer having a little more flex in their gel coat. This Flex version of the resin is offered to achieve this, but should not be used for the bulk of the casting.

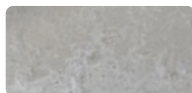
code	weight	price
JESRESFLEX1	1kg	£12.98
JESRESFLEX5	5kg	£59.62

JESMONITE AC930

Jesmonite AC930

Much like AC730, AC930 is an acrylic modified cement-based composite with a mix ratio of 5:1 (base to liquid). Suitable for use for castings of all sizes in all conditions, floor tiles, water features, you name it! The main difference between AC930 & 730 is that AC930 has a pale, light grey finish that mimics the finish of cement and concrete. The benefit of using AC930 over using standard Portland cement is that AC930 has low alkalinity and none of the efflorescence associated with ordinary cement based systems as well as the ability to cast thin panels with exceptional strength by using glass fibre reinforcement. Previously only available in bulk, we jumped at the chance to stock these smaller sizes as we are often asked about concrete finishes in Jesmonite which would require the addition of pigments and/or aggregates in the other systems.

SPECIFICATION: Wet Density: 1950 kg/m³, Dry Density: 1850 kg/m³, Water uptake/porosity: 2.26% (BS EN 1170-6), Freeze-thaw resistance: 300 cycles (DD CEN/TS 12390-9), Dimensional stability: Shrinkage = 0.83, Expansion = 1.28 (BS EN 1170-7), Weathering/durability: 1008 Hrs - No significant change (BS EN ISO 4982), Compressive strength: 56Mpa (N/mm²) (BS EN 12390-3), Flexural strength: LOP 8.9 MPa MOR 26.3 MPa (BS EN 1170-5)



code	weight	price
JESAC93001L	1kg	£15.00
JESAC93005L	5kg	£65.00
JESAC93005B	5kg	£17.00
JESAC93025B	25kg	£65.00
JESAC93006K	6kg	£30.40
JESAC93030K	30kg	£116.63

JESMONITE FLEX METAL GEL COATS

Jesmonite Flex Metal Gel Coats

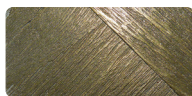
Jesmonite Flex Metal Gel Coats are supplied as kits in four finishes: Bronze, Silver Bronze, Copper, and Brass. They are designed to create a metal gel coat that can be applied into moulds, or onto coated substrates such as polystyrene, pre-coated with AC730. This is an extremely economical way of achieving beautiful metal finishes at a fraction of the cost. The Flex Metal Gel Coat can be reinforced using any of the AC730 Stone Finishes and quadraxial fabric. To achieve the best results the Flex Metal Gel Coats should be polished once removed from the mould. Please note, if you cannot brush the gel coat into a mould, but instead need to pour, you need to use the Metal Fillers in combination with the AC100 or AC300 systems.



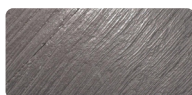
Bronze



Copper



Brass



Silver Bronze



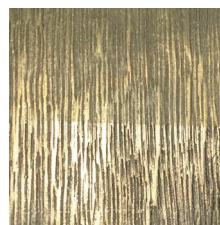
code	Material	weight	price
JESFMBR06	Bronze	650g	£36.06
JESFMCOP6	Copper	650g	£36.06
JESFMBRA6	Brass	650g	£36.06
JESFMSBR06	Silver Bronze	650g	£70.33
JESFMBR03	Bronze	3.25kg	£122.57
JESFMCOP3	Copper	3.25kg	£122.57
JESFMBRA3	Brass	3.25kg	£122.57
JESFMSBR03	Silver Bronze	3.25kg	£276.17

Bosch GP014 CE 240 V Professional Polisher

Particularly useful when combined with the tapered thread and wire brush listed.

- ✓ 6-stage speed pre-selection for working on a wide variety of materials
- ✓ Plastic-shielded gear housing with improved insulation
- ✓ Specially developed air inlets ensure optimum motor cooling for a long lifetime
- ✓ D-handle for easy grip adjustment in different work positions
- ✓ Triple-control safety switch for controlled switching-on of the machine
- ✓ Cut-out carbon brushes for a high level of motor protection.

Specifications: Rated input power: 1,400 W. No-load speed: 750 - 3,000 rpm. Power output: 800 W. Grinding spindle thread: M14. Rubber sanding plate Ø: 180 mm. Wire cup brush Ø: 100 mm. Cup wheel Ø: 180 mm. Polishing sponge Ø: 160 mm. Surface brush Ø: 175 mm. Weight: 2.5 kg. Supplied in a carton with: auxiliary handle and D-handle.



code	description	price
POWGP014CE	Bosch GP014 CE	£179.00

Wire Brush Wheel and Tapered Cone Adapter

The cone bites into the wooden core of the wheel allowing it to be attached to the polisher above - much faster than hand polishing with wire wool! Wire brush wheel wood core Ø 50 mm



code	description	price
POWM14TC	Tapered cone adapter [M14 internal thread]	£39.49
ABR120ST	Wire brush wheel [120 mm Ø x 16 mm. 0.08 mm steel wire]	£31.25

JESMONITE CONTROL AGENTS

Jesmonite Retarder

The pot life of the mixed Jesmonite at 15 - 18° C is 8 - 15 minutes. This can be extended up to 30 minutes by adding 2 - 8 g of retarder per kg prior to adding the powder. However, a small test is recommended, as the precise timing is dependent on both temperature and mix size.



code	description	weight	price
JESIR	AC100 and AC300	1kg	£10.09
JES5R	AC100 and AC300	5kg	£34.09
JESIR730	AC730	1kg	£10.75
JES5R730	AC730	5kg	£34.09

Jesmonite Thixotrope

Used in the preparation of AC100 and AC300 gel coats to control viscosity so that the material will not slump or drape on vertical surfaces. Thixotrope can also be used to make the material into a paste, which can be used as a filler for repair, or a jointing paste for bonding two laminates together. Add drop by drop until the desired consistency is achieved – typically 2 - 6 g per kilo of mix. [Not to be used with the AC730 Stone Finishes].

code	weight	price
JES1TN	1kg	£19.76
JES5TH	5kg	£80.61



Jesmonite Super Plasticiser

AC730 & new AC930 are both quite dry mixes so to help with flow without adding extra liquid base or water, use Super Plasticiser. Addition rate of 8 - 12 g per kg of mix. Do not exceed the recommended addition rate as it could cause your mix to separate.

code	weight	price
JESSP250	250g	£9.30
JESSPI	1kg	£17.05

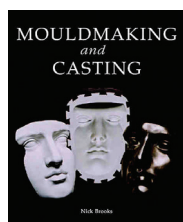


BOOKS ON MOULDMAKING AND CASTING

Mouldmaking and Casting

[Nick Brooks] A technical manual with step-by-step illustrations explaining the materials required and the processes involved for a wide range of mouldmaking techniques. Especially useful on silicone moulds and casting techniques. For propmakers, model makers, and sculptors.

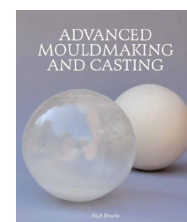
code	price
BKSMC	£22.00



Advanced Mouldmaking and Casting

[Nick Brooks] Aimed equally at the student and the professional wishing to further their skill base, this book provides an invaluable learning and reference tool for the studio or workshop of any artist, model maker, or designer.

code	price
BKS262	£19.95



JESMONITE COMPOSITE PIGMENTS

Jesmonite Composite Pigments

Add up to 20 g per kilo of the total mix. We stock a 200 g pot size for smaller jobs. As Jesmonite is water-based it is tempting to tint it with water-based scenic paints. However, this is not to be advised as they can be detrimental to the curing chemistry.

White	Black	Red Oxide	Yellow Oxide
Terracotta	Bright Red	Blue	Bright Yellow
Green	Coade Brown	Orange	Pink
Purple			

Colour	code	200g	code	1kg
White	JESIWHT2	£11.15	JESIWHT	£25.46
Black	JESIBLK2	£8.65	JESIBLK	£19.49
Red Oxide	JESIRO2	£8.65	JESIRO	£19.37
Yellow Oxide	JESIWO2	£7.87	JESIWO	£17.56
Terracotta	JESIT2N	£8.79	JESITN	£19.76
Bright Red	JESIBR2	£16.02	JESIBR	£36.68
Blue	JESIB2	£12.40	JESIB	£28.30
Bright Yellow	JESIBY2	£12.91	JESIBY	£29.72
Green	JESIG2	£14.22	JESIG	£32.55
Coade Brown	JESIC2N NEW	£10.72	JESICN NEW	£24.16
Orange	JESIOR2 NEW	£15.50	JESIOR NEW	£35.53
Pink	JESIP2 NEW	£21.30	JESIP NEW	£48.81
Purple	JESIPU2 NEW	£29.95	JESIPU NEW	£68.84

JESMONITE DECORATIVE PAINTS

Jesmonite Decorative Paints

New Decorative Paints from Jesmonite!

Great for achieving decorative, shimmering metallic finishes on Jesmonite. These sol-silicate based paints can be applied neat for best coverage or mixed with a dilution agent (included) to produce washes or translucent finishes. In testing we've found it's best applied using a sponge, dabbing it on the surface of the Jesmonite a little at a time. Once dry, the surface is very durable, suitable for indoor or outdoor applications as it is water repellent, UV stable & lightfast. A little goes a long way so use sparingly. Clean up with soap and water.



code	Colour	volume	price
JESDPBO	Burnt Orange	30ml	£11.43
JESDPGH	Golden Honey	30ml	£11.43
JESDPLR	Lava Red	30ml	£11.43
JESDPMS	Midnight Silver	30ml	£11.43
JESDPDA	Dilution Agent	30ml	£4.25

JESMONITE METAL FILLERS

Metallic Fillers

In addition to the AC100 and AC300 ranges, to give a decorative metal finish. If you wish to have a cleaner metal finish we would recommend going for a Flex Metal Gel Coat [previous page] however, if you are unable to brush into your mould and instead need to pour, these metal fillers give you that option with the AC100 or AC300 systems. They can be added to either just the gel coats, or to the whole composite. Add to a mix with an adjusted ratio to optimise the filler loading level. Jesmonite recommend the following ratio: liquids 300 g : base 600 g : metal filler 700 - 1000 g. Once objects are de-moulded and dried, the surface can be burnished with 000 Wire Wool (see abrasives page 314) to bring out the metallic finish, alternatively you can machine polish [see page 132]. It's then recommended to seal with a wax polish or sealer [see next page].



code	Material	weight	price
JESMFBRO1	Bronze	1kg	£42.57
JESMFCOP1	Copper	1kg	£49.70
JESMFBRA1	Brass	1kg	£42.63
JESMFBRO5	Bronze	5kg	£189.32
JESMFCOP5	Copper	5kg	£206.09
JESMFBRA5	Brass	5kg	£186.09

Like a demonstration?

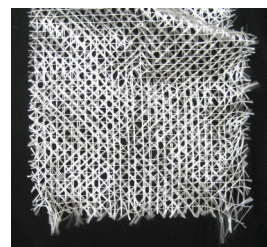
Flints can organise a demonstration for interested groups.



JESMONITE REINFORCEMENTS

Quadraxial Stitched Glass Fabric

Conventional glass matt fabrics are held together with a weak adhesive. The strong solvents in conventional resin systems will break down the adhesive so the fabric becomes pliable and is easy to use. As Jesmonite contains no solvents, the fabric would remain stiff and unworkable. Quadraxial fabric has been specially developed with no adhesives for use with Jesmonite. It can be easily moulded into complex shapes and will resist high impacts. The open weave of the fabric makes it very easy to wet through. Generally two layers are required for a laminate 5 - 6 mm thick. The composite between each layer can be mixed with 6 mm chopped glass strands to form a thick paste which will separate the two layers of quadraxial fabric creating a rigid truss effect.



code	weight	length	width	area	price
JES25QGF	220g/m ²	20m	1.25m	25m ²	£112.50
JES125QGFR	220g/m ²	100m	1.25m	125m ²	£519.33
JESIQGF	220g/m ²	per linear m	1.25m		£7.98

Chopped Glass Shards

These can be mixed with the composite [2.5% by weight] to act as reinforcement between the two layers of glass cloth when laminating. 1% by weight can be added to reinforce castings. May also be used with solvent-based systems.



code	strand length	qty	price
JESCS6	6mm	1kg	£13.43
JESC13	12mm	1kg	£13.43

PVA Fibres

PVA fibres are added to Jesmonite AC730 [page 131] as an alternative to glass fibres in all cast products such as garden ornaments and cast decorative panels. They are characterised by good adhesion and dispersion in Jesmonite composites, and by their high tensile strength and low elongation. PVA fibres will lead to improved flexural strength, and will help resist cracking and surface crazing in cast products. Typical addition rates are 1% - 2% of total mix weight.



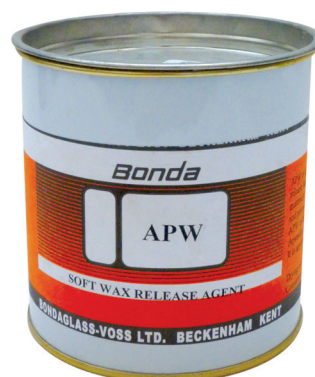
code	weight	price
JESPA1	1kg	£38.06
JESPA10	10kg	£313.22

MOULD RELEASE AGENT

Soft Wax Mixture Paste

Ideal for sealing the pores on a mould. Used to release hard polyurethane foams and casting materials from GRP, wood and silicone. Covers 50 g per m². Dries clear after use.

code	weight	price
JESRW	500g	£24.05



SURFACE TREATMENTS

Jesmonite Flexiguard

Sprayed on as a fine mist, Flexiguard chemically bonds with the surface of the AC730 stone finishes [and other Jesmonite cement-based composites] using nanotechnology after which water just beads up and rolls off. We were impressed! Effectively permanent due to the chemical bond, it is UV-stable, prevents soiling and mould and fungal growth. It protects against frost, oxide corrosion by acid rainwater and salty coastal and marine conditions. Slightly cloudy but invisible when applied. Almost odourless.



code	weight	price
JESFS1	1kg	£42.60
JESFS5	5kg	£181.74

Jesmonite Penetrating Sealer

This is specifically used when the sealing effect must be invisible [i.e. not a coating] but where good water, oil or stain resistance is required. It is particularly suitable for the Flex Metal surfaces [page 132] providing excellent protection whilst not affecting the metallic surface. It is also compatible with AC730 and will offer high resistance to all effects of external weathering.



code	weight	price
JESPS1	1kg	£52.52
JESPS5	5kg	£213.26

Jesmonite Acid Etch

Used to expose the fine decorative aggregate in AC730. The acid removes the cement rich film from the surface of objects moulded in AC730 to produce a stone finish. When diluted with water it can also be used as a cleaner for removing marks from AC730. Please refer to the AC730 user guide for further technical information – downloadable at flints.co.uk.

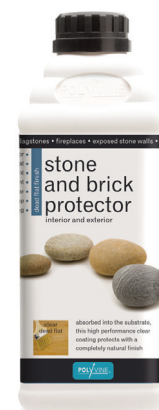


code	weight	price
JESAE5	5kg	£28.94

Polyvine Stone and Brick Protector

Water based dead flat penetrating sealer for porous surfaces that leaves surfaces looking like there's no sealer on it! Great on stone and plaster, we've also found it to be a good sealer for Jesmonite AC730. Micro porous & water-repellent. Can be brushed, sprayed or rolled.

Specification: Coverage: 15 - 20 m² per litre (depends on porosity of surface) Drying Time: 15 min - 1 hour. For interior or exterior use



code	volume	price
POL2601	1L	£24.18
POL2604	4L	£86.84

Jesmonite Acrylic Sealer

This is a general purpose clear acrylic sealer for Jesmonite systems. It provides prolonged external surface durability while retaining the key attribute of flexibility. It can be diluted, and Jesmonite composite pigments [see previous page] can be added to create colour washes to add patina or to age casts. It has a predicted external maintenance schedule of 6 - 10 years depending on the severity of exposure. The matt version is compatible with AC100 & AC300 only, the new gloss version is compatible with all Jesmonite systems.



code	Finish	weight	price
JESICTN	Matt	1kg	£24.03
JESICTNG NEW	Gloss	1kg	£24.03