

This resin is an optically clear epoxy resin system formulated to produce clear laminates, coats, linings etc with good UV stability.

It is easy to use, cures at ambient temperature and is self-levelling.

The resin is non-flammable, odour-free and has no solvent content.



UV-resistant



Non-flammable



Ecological



Colour

Clear

Appearance

Smooth Gloss finish.

Advantages

- ✓ Optically - stable (will not yellow over time)
- ✓ UV - resistant
- ✓ Non-flammable
- ✓ Solvent-free (environmentally friendly)
- ✓ Odour-free
- ✓ Self-smoothing
- ✓ Cures at ambient temperature
- ✓ Easy to clean finish
- ✓ Can be made highly decorative with pigment/glitter/flake additives

Note: Flowcast resin has a heat distortion temperature of 45-50 °C which makes it unsuitable for the placement of hot objects on its surface e.g cups, mugs, plates or other crockery.

Uses

For light and medium duty areas requiring an easy to clean, tough and durable coating.

Pack Size

5 kg units.

Components

Flowcast resin comprises of: one part Resin and one part Hardener component.

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Thickness

Recommended thickness is minimum 2-3 mm, can be built up to 15 mm in a single pour. Multiple pours may be required if you want to achieve a pour thickness in excess of the recommended 15 mm (please note that special additives will cause the resin to appear slightly 'cloudy' at increased thicknesses).

Mechanical Properties

Impact Resistance	18 J
Heat Resistance	45°C (23°C cure)

Physical Properties

Resin aspect	Pale Yellow liquid
Hardener aspect	Clear liquid
Resin viscosity	1,200 mPas
Hardener viscosity	70 mPas
Viscosity of mixture	400 mPas
Density of mixture	1.1

Curing

Workshop conditions	15 to 30°C, 70% humidity maximum
Pot life	30 minutes (@ 25°C)
Film touch dry	24 hrs
Film hard and sand-able	48 hours
Full cure	5-7 days

Pack Size

5 kg units

Coverage

The coverage rate will vary depending on the texture and porosity of the substrate, film thickness and application technique.

1 kg of resin will cover 1 m² @ 1mm thick

You may apply multiple layers if required.

Note: it is not recommended to lay the resin thicker than 7 mm per single pour as clear glossy finish might be impaired as well as acquire faint cloudiness to it (due to UV blocker). When applying multiple pours, ensure that the resin is tacky (not fully cured) to provide surface for new coat to adhere to. If the resin has fully cured, you will need to abrade /key the surface.

Mixing Ratio

By weight: 100 + 40, By volume 2 + 1

Note: The mixing ratio must be accurately followed. It is not possible to change the ratio. This would result in lower mechanical properties and the resin not drying properly. The mixture should be thoroughly stirred to ensure full homogeneity. Epoxy systems tend to heat up much faster in a pot than as a thin film. Therefore mix only the necessary amount usable within the given pot life.

Application

The product generates exotherm when mixed in larger volumes, and becomes unusable very quickly. Hence we recommend that small amounts are mixed initially (2 kg), and once you are more confident and understand the product, amounts can be increased to a maximum of 7 kg at a time.

Level

Ensure your piece is perfectly flat and level, otherwise the resin will run to the lowest point and "pool" in the centre, leaving too little resin at the corners. On large canvas paintings / pictures you should tighten the canvas as much as possible or place a board underneath to support it uniformly.

Bubbles

Any bubbles created by hand-mixing can be easily popped by using a sharp object or by passing warm air over the surface of the resin (e.g. using a blowtorch or hot air dryer on slow speed setting).

Blowtorch

Don't hold the blowtorch or hot air blower closer than 30 cm to your floor otherwise you risk creating ripples and dimples in the resin finish.

Dust

You will need to protect the piece from dust accumulation for at least 12-24hrs. You can do this by using a dust sheet or a box to cover the piece.

The system can be applied by hand pouring or by brush / roller. The resin can be tinted any colour with the addition of polymer pigments available in all solid and translucent colours.

Mix in the ratio of 2:1 (by volume) until it is a uniform colour & consistency (usually 3-4 mins).

Sealing Coat

If the material you are pouring Flowcast onto is not porous, for example plastics, metals, marble or granite then you do not need to seal the surface.

If the material you will be pouring Flowcast over is porous such as wood, chipboard, MDF or ceramic materials then it is highly recommended to apply a sealing coat before the main pour. Doing so will improve the flatness of the final surface and help to eliminate warping of the substrate after cure.

Mix around 500g of Flowcast per square metre of surface you need to seal. Don't worry if most of the resin seems to be absorbed by the substrate; this is normal for the sealing coat. Allow the 'sealing coat' to cure before proceeding. Depending on the ambient temperature, this is likely to take around 24 - 48hrs. It should feel hard and not at all tacky.

In order to ensure that the next layer of Flowcast bonds well to the sealing coat it is necessary to 'key' the surface of the sealing coat using some coarse abrasive paper. This will also help to flatten off any slight raised texture where the substrate has absorbed some of the sealing coat. Don't worry that the surface then looks scratched and light in colour - this will disappear as soon as the next layer of resin is poured.

Technical Data

Pot Life

30 minutes (@ 25°C).

Cleaning

All mixing containers and tools can be cleaned with Acetone or cellulose thinners.

Storage

Keep containers sealed and away from heat or cold.

Shelf Life

Shelf life is one year in sealed containers as provided.

Health and Safety

Before using this product, please ensure that you have received and read the product Safety Data Sheet. MSDS available on request.

Availability

3 - 5 working days. **Country of Manufacture:** United Kingdom

Technical Advice

For further information please contact our office.

You Might Also Need:

- Pigment Powder/Glitter/Flakes
- A Stirrer
- Resin Self-levelling Kit

Note: The information contained in this document, and all further technical advice given is based on our present knowledge and experience. However, it implies no liability or legal responsibility on our part. In particular, no warranty or guarantee of product performance in the legal sense is intended or implied as the conditions of use and the competence of any labour involved in the application are beyond our control. Properties listed are for guidance purposes only. We reserve the right to make any changes according to technological progress or further developments