



MasterCast 1-2-1 is a UV stabilised clear epoxy polymer

The formulation utilises the most up to date raw materials available to provide a non flammable, non odour and user friendly resin system.

However as with all industrial chemicals, the user should always observe good industrial hygiene. This includes the wearing of gloves, long sleeved clothing, eye protection and breathing mask where there is an absence of adequate ventilation.



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MASTER  **CAST 1·2·1**

Clear Artwork and Casting Resin



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MASTER CAST 1-2-1

Clear Artwork and Casting Resin

- ▶ This resin is an optically clear epoxy resin system formulated to produce clear laminates, coats, linings etc with good UV stability.
- ▶ Commonly used to seal and protect artwork, paintings, sculptures etc.
- ▶ Easy to use, cures at ambient temperature and is self levelling.
- ▶ The resin is non flammable, odour free and has no solvent content.

MIXING RATIO: By volume 1 : 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 (mix for 3-4 mins) 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. Warm temperatures will accelerate the resin mixture and cut down the working time. In conditions above 25°C cut down the mixing time to 1-2 mins and pour immediately. Do not mix and leave standing in the measuring container for more than a few minutes, otherwise exothermic heat will build up and the product will cure rapidly. In cold temperatures, pre-warm the Resin component (Part A) by placing it in a bath of hot water. This will lower the viscosity and make it easier to mix, it also releases mixing bubbles more effectively.

APPLICATION:

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 1:1 (by volume) until it is a uniform colour & consistency (usually 3-4 mins). Take care to scrape the inside walls and bottom of the mixing container whilst stirring, this will ensure all the resin and hardener is brought into the main mixture.

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 30cm to your artwork 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.

Cleaning: All mixing containers and tools can be cleaned with acetone or cellulose thinners.



Performance & Specification

VISCOSITY:	23°C (73°F)	25°C (77°F)
Resin:	6 500 – 6 800 mPa.s	5 500 – 5 600 mPa.s
Hardener:	2 200 – 2 300 mPa.s	1 900 – 2 000 mPa.s
Mixed Viscosity:	4 400 – 4 700 mPa.s	3 700 – 3 900 mPa.s

COLOUR:	Resin:	Clear – Transparent
	Hardener:	Clear – Transparent

SPECIFIC GRAVITY:	23°C (73°F)	
Resin:		1.11 – 1.15 g/cm ³
Hardener:		0.94 – 0.96 g/cm ³

MIXING RATIO:	By Weight	By Volume
	100 parts Resin	100 parts Resin
	90 parts Hardener	100 parts Hardener

COVERAGE:	(applied 0.5 mm thick)
	1.5 m ² per litre mixed resin (based on a self levelling layer 0.5mm thick)

PRACTICAL WORKING TIME:	23°C (73°F)	25°C (77°F)
(250 g mixed resin):	15 – 20 Minutes	10 – 12 Minutes

GELTIME:	23°C (73°F)	25°C (77°F)
(250 g mixed resin)	25 – 30 Minutes	20 – 25 Minutes
(5 mm casting)	55 – 60 Minutes	50 – 55 Minutes
(2 mm coating)	65 – 70 Minutes	55 – 60 Minutes

SETTING TIME:	23°C (73°F)	25°C (77°F)
(250 g mixed resin):	45 – 60 Minutes	45 – 60 Minutes
(5 mm castings)	4 – 4½ Hours	3½ – 4 Hours
(2 mm coating)	4½ – 5 Hours	4 – 4½ Hours

TOUCH DRY:	23°C (73°F)	25°C (77°F)
	4 – 5 Hours	4 Hours

HARDNESS:		
Cured 24 Hours / 25°C (77°F)	Shore D:	75 – 78
Hardness at 60°C (140°F)	Shore D:	30 – 35

MINIMUM APPLICATION TEMPERATURE:	10°C (50°F)
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HEAT RESISTANCE:	Suitable for applications up to 50°C (122°F)
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UV STABILITY:

Although our resins are UV stabilised this does not mean they are UV proof. Ultimately all our clear epoxy resins will show signs of UV degradation over time. We work constantly to improve the UV protection, however resins are plastics and over time the sun will always win that battle.



2 kg kit



4 kg kit



10 kg kit

ELONGATION:	9 %
IMPACT STRENGTH:	(Din 53453) 3.5 kJ/m ²
CHEMICAL RESISTANCE:	Good: resistance against water Fair: resistance against diluted acids and alkalines Poor: resistance against most solvents (individual tests are recommended)

PROPERTIES AND USES:

MasterCast 1-2-1 resin produces an optically clear, high gloss and tough coating with good impact and abrasion resistance. The excellent clarity and transparency makes the resin system particularly suitable for the protection and decoration of:

- Artwork (paintings, sculptures and layered collage)
- Tabletops and bar counters
- Badges, emblems and jewellery manufacture
- Flower setting and paperweights

STORAGE: Shelf life is one year in sealed containers as provided. Keep containers sealed and away from heat or cold.

HEALTH & SAFETY: Although the resin is user friendly it is advisable to follow good industrial hygiene e.g. wear gloves & long sleeved clothing, don't eat or drink when working with the resin. MSDS available on request.