



The artwork shown was made with totalCAST, resi-TINT pigments and resi-BLAST dispersion media



totalCAST is a U.V stable clear hybrid polymer.

This formulation utilises the most up to date raw materials available to provide a non-toxic, odour-free and user-friendly resin system.

With all industrial chemicals the user should always observe good industrial hygiene.

This includes the wearing of gloves, long-sleeved clothing and eye protection.



Eli-Chem Resins UK Ltd

Astra House, The Common, Guildford Road, Cranleigh, Surrey, GU6 8RZ, United Kingdom

T +44 (0)1483 266636/7

F +44 (0)1483 266650

M +44 (0)7711 669607

E sales@elichem.co.uk

W www.elichem.co.uk

f facebook.com/elichem

ig instagram.com/elichemresins



totalCAST

Clear Artwork Resin



totalCAST

Clear Artwork Resin

Performance & Specification

- ▶ This resin is an optically clear hybrid polymer resin system formulated to produce clear laminates, coats, linings etc.
- ▶ It is commonly used to seal/protect artwork, paintings, sculptures etc.
- ▶ 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.

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. Polymer 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 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. We recommend our resi-TINT range.

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

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 8-12hrs. 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.

VISCOSITY:	18°C (65°F)	25°C (77°F)
Resin:	4500 – 5000 mPa.s	4000 – 4500 mPa.s
Hardener:	2700 – 2800 mPa.s	2200 – 2300 mPa.s
Mixed Viscosity:	3300 – 3500 mPa.s	2800 – 3000 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
	100 parts Hardener	100 parts Hardener

COVERAGE:	(applied 0.5 mm thick)
	1 m ² per 0.5 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):	10 – 15 Minutes	10 – 12 Minutes

GELTIME:	23°C (73°F)	25°C (77°F)
(250 g mixed resin)	20 – 25 Minutes	20 – 21 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):	26 – 27 Minutes	24 – 25 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)
	6 – 7 Hours	4 – 5 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:	5°C (41°F)
-----------------------------------------	------------

HEAT RESISTANCE:	Suitable for applications up to 50°C (122°F)
-------------------------	----------------------------------------------

TENSILE STRENGTH:	(Din 53455)	40 MPa
--------------------------	-------------	--------

FLEXURAL STRENGTH:	(Din 53452)	65 MPa
---------------------------	-------------	--------

COMPRESSIVE STRENGTH AT YIELD:	(Din 53454)	24 MPa
---------------------------------------	-------------	--------



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:

totalCAST 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/drink when working with the resin. SDS available on request.