



In brief

RESION Epoxy Casting Resin is a transparent epoxy resin for casting a wide variety of objects. The epoxy is easy to process and suitable for various decorative and creative applications.

Application

RESION Epoxy Casting Resin is suitable for transparent casting of various objects, such as tabletops, jewellery, art objects, sculptures, the encapsulation of animals and objects, and various other casting applications.

RESION Epoxy Casting Resin can be coloured with various inks and pigments to create different effects.

Properties

- Easy to use
- Transparent
- Good flow properties
- Long working time
- Suitable for various casting applications
- High-gloss surface when used correctly
- Also suitable for application by roller

Technical Data

Property	Value
Base	Bisphenol-A/F, reactively diluted
Hardener	Cycloaliphatic amine
Viscosity (mixed)	300–700 mPa·s at 25 °C
Specific gravity	1.15 g/ml

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Processing Instructions

Mix the epoxy resin (Component A) with the hardener (Component B).

Mix the resin and hardener thoroughly, making sure to scrape the sides and bottom of the mixing container carefully. If required, transfer the epoxy to a second mixing container and mix again.

The epoxy is now ready for use.

Pour the epoxy slowly into the mould, preferably starting at the lowest point of the mould.

During processing and curing, maintain a temperature that is as constant as possible.

Processing Data

Mixing ratio (by weight)	100 : 60
Mixing ratio (by volume)	100 : 66
Working time	approx. 45 minutes
Curing time at 23 °C	approx. 48 hours

Note: Processing larger quantities of epoxy will reduce the working time.



Casting Thickness

The maximum achievable casting thickness depends on various factors, of which temperature is the most important.

When larger quantities of epoxy are used, heat may be generated during curing. This causes the reaction to proceed more rapidly and may reduce the maximum casting thickness.

The following values are indicative:

Temperature	Maximum casting thickness
15 °C	approx. 3 cm
20 °C	approx. 2 cm
25 °C	approx. 1.5 cm

Higher temperature: faster curing

Lower temperature: slower curing

Larger quantity: faster curing

Smaller quantity or thinly spread: slower curing

For large casting projects, we recommend carrying out a test beforehand.



Technical Data of Cured Material

Property	Value
Tensile strength	47 MPa
Flexural strength	59 MPa
Flexural modulus	2.5 GPa
Elongation at break	1.9%
Compressive strength (yield)	70 MPa
HDT (thermal)	59 °C
T _g (DSC/DMA)	45–50 °C

Tips

- Always apply a thin primer coat of epoxy to wood and other porous surfaces to minimise potential problems with the substrate.
- Maintain a constant temperature during both processing and curing to minimise surface irregularities.
- Process the resin at a minimum temperature of 12 °C and keep the temperature as constant as possible. A variation of a few degrees is not a problem.
- Approximately 10 minutes after application, the surface can be lightly passed over with a gas torch or heat gun to remove surface air bubbles. Maintain a distance of approximately 10–15 cm from the surface and keep the flame or hot air moving continuously.
- Air bubbles can be removed very quickly. There is no need to heat the epoxy for an extended period.
- At higher temperatures, the epoxy is less viscous, allowing air bubbles to reach the surface more easily.
- Spilled material and tools can be cleaned with acetone or household vinegar.



Safety

Wear nitrile gloves and safety goggles.

Ensure adequate ventilation during processing. In poorly ventilated areas, use a suitable respirator.

Refer to the Safety Data Sheets for detailed information.

Storage and Shelf Life

Store in a dry and dark place.

Always keep containers tightly closed to prevent moisture absorption.

Avoid direct and prolonged exposure to UV light.

Under these conditions, the epoxy has a shelf life of at least 1 year.

Epoxy may slowly yellow when exposed to light. This does not affect the properties of the epoxy.

In practice, epoxy can be stored for a very long time if a certain degree of yellowing is acceptable.



Mixing

It is essential that this epoxy resin is mixed in the correct proportions.

Always mix by weight using, for example, a digital kitchen scale. Place an empty mixing container on the scale and tare it. Add both components in the correct mixing ratio.

Once both components have been weighed, mix them carefully and thoroughly. It is recommended to mix thoroughly with a mixing spatula for at least 2 minutes, paying particular attention to scraping the bottom and sides of the mixing container.

Mix thoroughly but not too vigorously, as this will introduce more air bubbles.

Once both components have been properly mixed, transfer the resin to a clean mixing container and mix thoroughly again with a spatula.

The resin is now ready for use.



Mixing Ratio Table

RESION Epoxy Casting Resin – 100 : 60 by weight

Total	Component A	Component B
16 g	10 g	6 g
40 g	25 g	15 g
80 g	50 g	30 g
120 g	75 g	45 g
192 g	120 g	72 g
240 g	150 g	90 g
320 g	200 g	120 g
640 g	400 g	240 g
800 g	500 g	300 g
1.6 kg	1.0 kg	600 g
3.2 kg	2.0 kg	1.2 kg

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