

# heat-resistant epoxy resin

resin<sup>8</sup>

## description

Resin8 Heat-Resistant Epoxy Art & Casting Resin is an optically transparent, glossy resin with excellent surface heat resistance of up to 90°C. This self-levelling resin is ideal for making a clear top for coasters, trays, placemats and tabletops. It is durable with good impact and abrasion resistance and creates a tough yet flexible coating.

## main uses

- Coasters & placemats
- Coating and sealing artwork
- Countertops
- Casting (up to 1kg)

**top tips**  
warm the resin first to lower the viscosity - this will help release bubbles  
use a clear layer of this resin as the top layer of coasters  
measure and use at least 100g of mixed product

## Troubleshooting

Due to its long open time, this resin is susceptible to amine blush when used under the following conditions: high humidity, low room temperature (15°C or below), draughty and windy conditions (including air conditioning). To avoid polymer bloom we advise warming the resin first before mixing with the hardener. We also suggest that your working area is kept as consistent as possible with regard to temperature and humidity while the resin is curing, and that the silicone mould you are pouring into is also pre-warmed. The addition of alcohol inks can also cause problematic surface finishes due to the effect of the ink diluting the resin and impacting its density. Alcohol inks can result in cloudiness, dimples and other surface blemishes.

## application

Mix in the ratio 2:1 by volume or weight until the resin is a uniform colour and consistency (usually 3 minutes). Once mixed it can be poured into a jewellery mount, silicone mould or onto a piece of artwork. Pigments and dyes can be added. The resin can also be poured onto artwork to seal it and produce a clear laminate. Temperature should be between 18 to 25°C. Humidity should be below 70%. Pot life is as follows for a 250g mix at 20°C – 90-105 minutes. All mixing containers and tools can be cleaned with Acetone. Any bubbles can be popped with a sharp-object or removed by passing hot air over the surface of the resin (use a blow-torch or hot air dryer on slow speed setting). Hold the blowtorch or hot air blower at least 20cm away from the resin otherwise you risk creating ripples.

## physical & mechanical properties

Properties given for a temperature of 20°C:

- + Resin: Clear liquid, viscosity of 5,000 - 5,500 mPas
- + Hardener: Clear liquid, viscosity of 500 - 550 mPas
- + Mixture: Clear liquid, viscosity of 1,500 to 1,600 mPas
- + Specific gravity resin: 1.11 - 1.15 g/cm<sup>3</sup>
- + Specific gravity hardener: 0.94 - 0.96 g/cm<sup>3</sup>
- + Mix ratio: 2:1 (100 parts to 50 parts)
- + Hardness: 75 - 80 Shore D (cured 24 hours @ 25°C)
- + Gel time: (250g mixed resin) 2 Hours  
(5mm casting) 4-4½ Hours  
(2mm coating) 12 Hours
- + Setting time: (250g mixed resin) 2-2½ Hours  
(5mm castings) 12 Hours  
(2mm coating) 24 Hours
- + Touch dry: 24 hours
- + Full cure: 14-21 days

The data provided in this document is the result of tests and is believed to be accurate. We do not accept any responsibility over the mishandling of these products and our liability is limited strictly to the value of the products we supply.

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## key benefits

- OPTICALLY TRANSPARENT**  
UV stabilised, clear, excellent visual properties
- TOUGH**  
Excellent abrasion and impact resistance, flexible and tough
- EXCELLENT HEAT RESISTANCE**  
Ambient temperature curing, surface heat-resistance up to 90°C
- SOLVENT FREE**  
Heat-Resistant Epoxy Resin is a modern formulation of the safest epoxy chemicals available

## mixing ratio

by volume - resin : hardener - 2 : 1

by weight - resin : hardener - 100g : 50g

mixing is CRITICAL and must be accurate. 2 parts resin for 1 part of hardener will provide a hard casting/coating once cured. Pour the hardener first then the resin. The combined liquids must be thoroughly mixed, scraping the sides and base of the mixing pot. Transfer the mix to a second container and stir for at least 3 minutes. An entirely homogenous mix is essential in achieving optimal results. It is important to only mix the correct quantity at a time as epoxy resin tends to build up heat. Ensure you measure and mix more than 100g for accuracy (and less than 1kg).



## health & safety

eat, drink and smoke AWAY from your work area  
wear nitrile gloves, or a suitable barrier cream  
eye protection is recommended  
wear a suitable respiratory mask when sanding  
keep hands away from face

if in contact with skin - wash immediately with plenty of water  
if in contact with eyes - rinse immediately  
**seek medical advice**  
if swallowed - do NOT induce vomiting  
**seek medical advice immediately**



wear nitrile gloves or a suitable barrier cream for epoxy resin, goggles and a respirator if sanding



stir thoroughly for 3 minutes



pot life for a 250g mix at 20°C - 1.5 hours, 500g mix at 20°C - 1 hour, 10 minutes



demould after 24 hours (at 20°C). This resin needs 14-21 days to reach maximum cured properties and temperature resistance



shelf life 12 months in unopened containers



totally clear and UV stabilised



warm resin component by standing bottle in warm water for 5 minutes to help with bubble release



safe to be de-gassed with naked flame for 2 seconds (but not if alcohol inks are being used)



excellent for use in silicone moulds