



# Polycraft ClearTop 5

Low Viscosity, UV Resistant Fast Curing Clear Epoxy

|                                 |                          |                           |              |            |  |   |
|---------------------------------|--------------------------|---------------------------|--------------|------------|--|---|
| <b>100:50</b><br>Resin:Hardener | <b>25-30 Min</b>         | <b>24 Hrs</b>             | <b>Clear</b> | <b>D80</b> |  <b>20-25°C</b> | 1.11kg by weight<br>equals approx.<br>1 litre in volume |
| Mix Ratio<br>By Weight          | Pot Life<br>(200g @25°C) | Cure Time<br>(200g@ 25°C) | Cured Colour | Hardness   | Working<br>Temperature   | Density   |

## Technical Overview

| Property                     | Component                  | Value                                     |
|------------------------------|----------------------------|---|
| Material                     | Resin<br>Hardener          | Epoxy<br>Polyamine                        |
| Colour                       | A<br>B                     | Clear<br>Clear                            |
| Viscosity (mPas)<br>@25°C    | Resin<br>Hardener<br>Mixed | 1700 - 2100<br>200 - 300<br>600 - 900     |
| Density @ 25°C<br>g/cm3      | Resin<br>Hardener<br>Mixed | 1.14 ± 0.05<br>1.01 ± 0.05<br>1.09 ± 0.05 |
| Mix Ratio                    | By Weight                  | 100: Resin<br>50: Hardener                |
| Pot Life (200g at 25°C)      | Mins                       | 25 - 30                                   |
| Recommended Casting<br>Depth | mm                         | 1 - 5                                     |

| Property                      | Unit    | Value       |
|-------------------------------|---------|-------------|
| Hardness                      | Shore D | 80          |
| Tensile Strength              | MPa     | 61.0 - 66.0 |
| Elongation at break           | %       | 4.0 - 6.0   |
| Tensile Modulus               | MPa     | 1600 - 1900 |
| Flexural Strength             | MPa     | 75.0 - 80.0 |
| Flexural Modulus              | MPa     | 2050 - 2350 |
| Glass Transition Temp<br>(Tg) | Celsius | 60 - 65     |

## Storage / Shelf-life

Polycraft ClearTop 5 should be kept in dark storage between 18°C and 25°C. Under these conditions, shelf-life in the original unopened containers is six months from the date of purchase. If stored at lower temperatures for prolonged periods the epoxy component may crystallise. Please see page 2 for further information regarding crystallisation.

## Product Overview

Polycraft ClearTop 5 is a fast curing, colourless epoxy resin designed especially for use in a variety of applications such as : Artwork, Bar tops, Collages, Canvas, Countertops, Furniture, Jewellery, Photos and other decorative and artistic projects etc that require a strong, durable coating. ClearTop 5 is low in colour and high in UV resistance. ClearTop 5 has excellent water resistance, chemical resistance, mechanical properties with excellent adhesion to a variety of substrates.

### Important information regarding usage for bar tops, counter tops and flooring.

While this resin has been manufactured to resist scratching and resistance to marking from heat sources we must stress this resin will still mark if sharp items are moved across the surface or hot items are placed on the surface. It is essential that place mats are used for any hot items that are being placed on the surface. Over time it is inevitable that scratches will appear on the surface and while small marks may be removed using polishing compounds, deep scratches will be difficult to repair. We are aware that many of our customers use this resin for creating kitchen worktops however we advise caution when using for this purpose due to the range of hot and sharp items that will be placed on the surface.

If using this resin as a floor covering be aware that the floor will scratch over time, any small stones or chippings on the soles of shoes can cause considerable damage, due to the highly polished cured finish this floor surface will also become extremely slippery when wet. As with all casting products, we stress that customers should purchase a small amount to perform initial tests to ensure suitability for their project and requirements.

## Instructions for Use

### Preparation

- Both components should be in the temperature range (20-25°C) for the best results. Substrate or mould should be within this range also.
- Ensure surface or mould is clean and free of any contaminants

### Mix/Pour

- With care, measure and combine quantities required. Measure quantities with digital scales.
- Ensure to thoroughly mix contents, material will initially become hazy when both parts are combined, clarity will return quickly with mixing. Mix well and scrape the sides of the mixing container until no visible streaks are showing and then transfer material into a fresh mixing container and mix again, this will greatly reduce the chances of unmixed streaks in the work piece.
- Maintain awareness with potlife as larger mixes will inevitably generate an exotherm faster than small mixes (ref: chart on page 2).

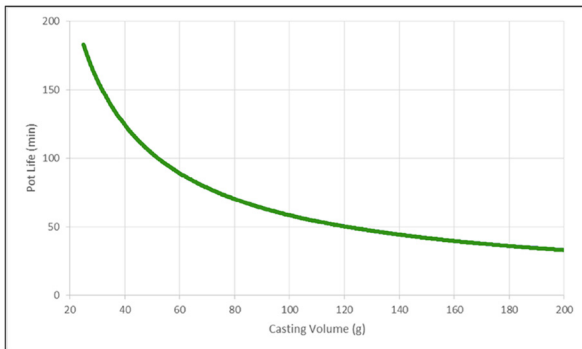


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## Potlife Analysis



## Potlife Analysis (continued)

Polycraft ClearTop 5 is designed for use at room temperature, lower temperatures will ultimately result in a slower cure. The material should be used above minimum curing temperature of 15°C and ideally be used around 20°C to 25°C when possible for best results. As per graph to the left, small quantities of material will result in longer cure times, larger quantities will have a short potlife.

## Crystallisation

Crystallisation occurs due to a phase change from liquid or solid (like water turning to ice). When this happens the epoxy will appear milky, and can look slushy or become a solid in extreme cases. This can be easily reversed by warming the epoxy component to 60°C. Ensure any crystals are completely removed as remaining crystals can act as a seed causing the crystals to form again quite quickly. To help prevent crystallisation it is recommended to store the resin system at a room temperature where possible, ensure to clean the lids with each use, cleaning the bottle necks of the container with isopropyl alcohol / acetone allowing the solvent to evaporate before replacing the lid. Please note this can occur during transport especially when it's cold so it's worth inspecting during opening. High purity, low viscosities epoxies can be quite sensitive to crystallisation, whilst it doesn't always occur it isn't totally uncommon. It is not advised to use the system in a semi crystallised state as this will show in the cured product.

## Health and Safety

Before use please read product labels, technical sheets and safety data sheets and ensure you have adequate understanding of the safety precautions and directions before using the materials.