Technical Datasheet

Polycraft Cleartop 5

Low Viscosity, UV Resistance Fast Curing Clear Epoxy Resin

Revision Date: 11/11/24

100:50	25-30 Min	24 Hrs	Water Clear	80D	20-25°c	1.11kg in weight equals approx-imately 1 litre in volume
Mix Ratio By Weight	Pot Life	Demould Time	Cured Colour	Hardness	Working Temperature	Density

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. It is high in UV resistance with excellent chemical and water resistance. Cleartop 5 also has excellent mechanical properties with excellent adhesion to a variety of substrates. Manufactured to resist scratching and resistance to marking from heat sources, this resin may still mark if sharp items are moved across the surface or hot items are placed on the surface. As with all casting products, we stress that customers should perform initial tests to ensure suitability for their project and requirements.

Mixing

All mixing and curing should ideally be done at room temperature. Ensure that you weigh the correct amounts of resin and hardener into a mixing container and mix the contents thoroughly. Initially, the mixture will appear hazy, but clarity will return quickly with mixing Mix well and scrape the sides of the container until no visible streaks remain. Then, transfer the material into a fresh mixing container and mix again. This step will greatly reduce the chances of encountering unmixed streaks in the casting.

Potlife

Warning: The potlife and other properties in this datasheet are based on standard testing conditions. Mixing larger amounts of the product than specified may shorten the potlife. Conditions like temperature, room environment, and direct sunlight can affect the potlife and curing time. When casting into insulating materials, you may need to reduce the thickness, as insulation can cause the resin to overheat. For large pours, keep your working environment between 15°C and 20°C, and consider using additional cooling. Large amounts of resin can easily overheat and crack, especially when pouring into materials like wood. We recommend doing initial tests to make sure the product fits your project needs before moving on to full production.

Crystallisation

Crystallization occurs when there is a phase change from liquid to solid, such as when water freezes into ice. When this happens with epoxy resin, it can appear cloudy and may look slushy or become solid in extreme cases. This crystallization can easily be reversed by warming the epoxy component to 60°C. Be sure to completely remove any crystals, as remaining crystals can act as seeds, causing the formation of new crystals to happen quickly. To help prevent crystallization, it is recommended to store the resin system at room temperature whenever possible. Additionally, clean the lids after each use and wipe the necks of the containers with isopropyl alcohol or acetone, allowing the solvent to evaporate before replacing the lids.

Material	Resin Hardener	Epoxy Polyamine
Colour	Resin Hardener	Clear Clear
Viscosity	Resin Hardener Mixed	1700 - 2100 200 - 300 600 - 900
Density @25°c (g/cm3)	Resin Hardener Mixed	1.14 ± 0.05 1.01 ±0.05 1.09 ±0.05
Mix Ratio	By Weight	100: Resin 50: Hardener
Potlife (200g @25°c)	mins	25 - 30
Recommended Casting Dept	mm	1 - 5

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 (Tg)	Celsius	60 - 65

Storage / Shelflife

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.

Health & 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.