Polycraft ClearTop 35

Low Viscosity, UV Resistant Slow Curing Clear Epoxy

100:45 Resin:Hardener	> 8	48 Hrs	Clear	D80	20-25°c	1.07kg by weight equals approx. 1 litre in volume
Mix Ratio By Weight	Pot Life (200g @25°c)	Cure Time (200g@ 25°c)	Cured Colour	Hardness	Working Temperature	Density

Technical Overview

Property	Component	Value
Material	Resin Hardener	Epoxy Polyamine
Colour	A B	Clear Clear
Viscosity (mPas) @25°c	Resin Hardener Mixed	800 - 1200 60 - 80 350 - 650
Density @ 25°c g/cm3	Resin Hardener Mixed	1.10 ± 0.05 0.95 ± 0.05 1.05 ± 0.05
Mix Ratio	By Weight	100: Resin 45: Hardener
Pot Life (200g at 25°c)	Hours	> 8
Minimum Cure Temp	Celsius	18
Recommended Casting Depth	mm	5 - 35

Property	Unit	Value
Hardness	Shore D	80
Tensile Strength	MPa	60 - 65
Elongation at break	%	3.5 - 5.5
Tensile Modulus	MPa	TBC
Flexural Strength	MPa	75 - 80
Flexural Modulus	MPa	2000 - 2400
Glass Transition Temp (Tg)	Celsius	60 - 65

Storage / Shelf-life

Polycraft ClearTop 35 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 35 is a fast curing, colourless epoxy resin designed especially for use in variety of applications such as Artwork, Bar tops, Counter tops, Furniture, Jewellery, Photos and other decorative and artistic projects that require a strong, durable coating. ClearTop 35 is low in colour and high in UV resistance. ClearTop 35 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 contaminates

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.
- Once thoroughly mixed the material can be used for your particular application.

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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.

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.

Information on Potlife and Curing Time's

Warning: The potlife and other properties provided on this datasheet are based on common bench test parameters. Mixing larger masses of product than stated on the datasheet will likely lead to a reduced potlife. Variables such as environment, room, material temperatures and direct sunlight will affect the potlife and cure time. Where mould or casting is insulating, casting thickness will likely need to be reduced as insulative properties may also lead to overheating of the resin system. For large pours its vital your working environment is between 15°c and 20°c with consideration to providing additional cooling as large masses of resin can easily overheat and fracture, this can be particularly apparent when casting into insulative materials such are wood. We advise testing and stress that customers perform initial tests to ensure suitability for their project and requirements prior to up-scaling to full project.