



DF 3 E

Decorative Primer

Pack Size
15Kgs

TDS
Technical Data Sheet



Product Description

DF 3E is a low-viscosity, two-component epoxy primer designed for decorative applications. The product offers an extended working time of over 300 minutes, making it suitable for medium-thickness castings up to approximately 50mm, depending on the surface, temperature, and casting volume.

Properties and Applications

- Transparent, low-shrinkage casting with tack-free surfaces
- Excellent flow properties due to its low viscosity
- Cold-hardening and demouldable at room temperature, with the option to cure at slightly elevated temperatures
- Highly fillable casting resin that forms pressure-resistant and impact-resistant molds or components with high strength and minimal shrinkage

Industrial and Hobby Applications

- Ideal for creating "River Tables" and other transparent, water-clear castings
- Suitable for foundry patterns, die plates, reproduction patterns, and medium molds and castings
- Can be used as an injection system for repairs and encapsulation of decorative elements
- Functions as a leveling compound or injection resin for structural repairs

For enhanced UV resistance, a suitable polyurethane-based clear coat (such as HP-PUR) is recommended. During the curing process, heat may be released, so cooling or heat exchange measures should be implemented to prevent hot spots.

Processing Data

Color:	Colorless (resin), slightly yellowish (hardener)
Mixing Ratio:	100 parts resin : 50 parts hardener (by weight)
Viscosity (Mixed)	Low-viscosity
Working Time (Pot Life):	>60 minutes at 20°C
Demouldable Time:	<48 hours at 20°C, <24 hours at 30°C
Full Cure:	7 days at 20°C

Working Temperature:	18-35°C
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Raw Material Data

Viscosity (Resin at 23°C):	600 - 800 mPa·s
Viscosity (Hardener at 23°C):	10 - 20 mPa·s

Data of Unreinforced Resin

Density	1.1 g/cm ³ at 25°C
Hardness (Shore D):	75
Color (Mixed):	Transparent, colorless

Safety Instructions

Follow safety instructions provided on the container labels or Safety Data Sheets. Prevent inhalation of fumes and avoid contact with skin. Wear suitable protective gloves and safety goggles. Do not eat, drink, or smoke while using this product. Mix components only in recommended proportions according to the instructions. Keep out of reach of children.

Application Instructions

Perform preliminary tests to ensure suitability for the specific application. Use the system within optimal temperature conditions, ensuring that the relative humidity does not exceed 70%. Mix the epoxy and hardener in a suitable vessel according to the instructions. Depending on the mold material, a release agent may be required for easy demoulding. Ensure thorough mixing of the components, paying special attention to the edges. Streaks indicate insufficient mixing and can lead to incomplete curing and reduced performance. After thorough homogenization, additives, dry fillers, or color pigments may be optionally stirred in. Degassing under vacuum at 30-50 mbar can vent the system. Note: Under vacuum, a volume increase is expected.

Larger quantities (>100g) and higher temperatures (>20°C) reduce processing time. If the mixture exceeds 40°C in the mixing vessel, it should no longer be used as this may compromise its properties. Pour the mixture into flat paint trays to delay temperature increases.

Cleaning Work Tools

Remove uncured product residues from tools using acetone or Thinner XB. Allow tools to air out thoroughly after cleaning to prevent solvent retention. Hardened material can only be removed mechanically, such as by sanding.

Storage

Keep container threads free from material residues. Do not exchange container tops or lids. Close containers tightly after use. Store in a cool, dry place. Under optimal storage conditions, the shelf life is expected to exceed 12 months.

Deliverable Quantities

Available in plastic containers with safety fastenings in various quantities. Larger containers (barrels, IBCs) are available upon request.

Disposal

Prevent the product from entering drains, waterways, or soil. Uncured product residues are classified as hazardous waste. The cured system can be disposed of as construction site or household waste.

Additional Information

For further application guidance, visit our website or contact us directly. We strongly recommend considering the following factors:

Layer Height and Casting Geometry

- For larger total masses, opt for lower layer heights
- Divide the casting into several layers with a waiting period of 36 hours between layers (Dividing layers are only visible laterally)

Heat Dissipation of Mold and Substrate

- Use thin-walled molds
- Use metal or earthenware as a mold substrate

Heat Dissipation to Environment

- Ensure air circulation in the room
- Do not cover castings

Start with Low Energy

- Store material in a cool place before use
- Cool the room before starting the casting process

Distribute Heat in the Casting

In the early stages of casting, use a spatula to spread the resin from the core outward

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Data Reliability

All technical data provided in this document are based on laboratory tests. Actual performance may vary due to factors beyond our control.

Regional Compliance

Product specifications may vary based on local regulations. Please refer to the local Product Data Sheet for precise information.

Legal Disclaimer

The information and recommendations regarding the application and end-use of Carbolink products are provided in good faith based on our current knowledge and experience. Due to variations in materials, substrates, and actual site conditions, no warranty of merchantability or fitness for a specific purpose can be inferred. The user must determine the product's suitability for the intended application. Carbolink reserves the right to change the properties of its products. All proprietary rights of third parties must be observed. Orders are subject to our current terms of sale and delivery. Always refer to the most recent local Product Data Sheet, available upon request.