

PE DEEP CASTING: CLEAR EPOXY FOR MASS CASTINGS

TECHNICAL DATA SHEET

DESCRIPTION

PE DEEP CASTING is a 100% solid, two component epoxy casting system. It is used for mass castings with thicknesses greater than 1 inch. PE DEEP CASTING is designed for casting, potting and embedding applications. The low color and low viscosity allow for bubble free, crystal clear castings ideal for art and hobby applications. It is formulated for a long gel time, with low exothermic heat buildup. PE DEEP CASTING has a low VOC content, for user safety and reduced environmental impact.

PRIMARY APPLICATIONS

- Embedding and encapsulation
- Resin jewelry
- Resin castings
- Bar top or table top epoxy
- Molding resin
- Art or crafting resin
- High build coatings
- Mass castings

ADVANTAGES

- 100 % solids, low VOC content and low odor
- Crystal clear and high gloss appearance
- Magnifies object appearance
- Self-levelling
- Dense surface resistant to bacteria and moisture
- Excellent air release qualities
- Will not distort with age

TECHNICAL SPECIFICATIONS AND MECHANICAL DATA

PACKAGING	3 US gal (11.35 L) or 15 US gal (56.7 L)
COLOR	Clear
MIX RATIO, BY VOLUME	2:1 (RESIN: HARDENER)
MIX RATIO, BY WEIGHT	100:45 (RESIN: HARDENER)
MIXED VISCOSITY @ 77°F (25°C)	500 CPS
POT LIFE	360 minutes (6 hours) @ 77°F (25°C)
TACK-FREE TIME @ 77°F (25°C)	84 HOURS
IDEAL WORKING TEMPERATURE RANGE	OPTIMAL 61 - 81°F (16 - 27°C)
MAXIMUM CASTABLE AMOUNTS @ 77°F (25°C)	110 oz (3 kg or 3 Liters)
PEAK EXOTHERM	100°F (38°C)
RECOMMENDED FULL CURE	7 DAYS @ 77°F (25°C)
TENSILE STRENGTH	9500 PSI
ELONGATION	6.7%
FLEXURAL STRENGTH	15500 PSI
COMPRESSION STRENGTH	11700 PSI
TG ULTIMATE	203°F (95°C)
HARDNESS, SHORE D	70 - 80
VOC	< 10 g/L

IMPORTANT NOTES

- The indicated mileage is calculated for flat surfaces. A porous or imperfect surface will require more material in order to cover the same mileage.
- The indicated viscosity is for clear product only. Any addition of colorant may affect the viscosity.

SURFACE PREPARATION

The surface to be coated must be well dry and free of dust, wax, grease or oil.

MIXING AND MEASURING

Mix only the amount that you need at one time. Limit maximum castable amount to 2 liters (2 kg) of A and 1 liter (1kg) of B. Unused resin and hardener should be left in original containers. Mix exact amounts of both resin and hardener in separate mixing cups. Do not add more hardener than resin, as this will cause the finished coating to remain sticky. Inaccurate measuring will cause epoxy surface to remain soft or sticky spots on the epoxy surface.

APPLICATION

Warm up the PE DEEP CASTING resin and hardener to 75 – 81°F (24 – 27°C). This will improve the flow characteristics and bubble release. In a dry, clean container mix 2 parts of resin with 1 part of hardener. Be sure to scrape the sides and bottom of the mixing container while mixing. Mix for 3-4 minutes using a paint paddle. After mixing, transfer the mix into a similar mixing container and mix again for another 1 - 2 minutes.

Pour material into the mold. Wait 15 – 20 minutes then lightly pass a lit propane torch over the surface at a 45° degree angle with the tip of the torch being at least 6 inches from the surface until all bubbles are gone. The carbon dioxide at the end of the flame helps facilitate bubble release and popping the bubbles. This will help ensure a glass like finish. If latent bubbles exit, a similar torching at 30 minutes may be needed. Drips may be sanded off after the item has cured.

CLEANING

Clean all application equipment with acetone. Once the product has hardened, it can only be removed by sanding. It is advisable to clean immediately after use.

RESTRICTIONS

- PE DEEP CASTING should be stored in a dry place between 75 – 81°F (24 – 27°C), out of the sun and out of reach of children.
- Resin and hardener should not be left in an open container.
- Application should be used where humidity is under 60% and temperature is between 70°- 84°F (21°- 29°C).
- Use a de-humidifier if needed.
- PE DEEP CASTING should be used within one year of purchase.
- Surfaces may discolor in areas exposed to regular ultraviolet light.

HEALTH AND SAFETY

In case of skin contact, wash with water and soap. In case of eye contact, immediately rinse with water for at least 15 minutes. Consult with a doctor. For respiratory problems, transport victim to fresh air. Remove contaminated clothes and clean before reuse. Components A and B contain toxic ingredients. Prolonged contact of this product with the skin is susceptible to provoke an irritation. Avoid eye contact. Contact with may cause serious burns. Avoid breathing vapors release from this product. This product is a strong sensitizer. Wear safety glasses and chemical resistant gloves. A breathing apparatus filtering organic vapors approved by the NIOSH/MSHA is recommended. Predict suitable ventilation.

Consult the material safety data sheet for further information.

IMPORTANT NOTICE

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