Barnes **Technical Data Sheet**

Product Name
ULTRAPOUR® EPOXY CASTING SYSTEM

Product Description
ULTRAPOUR® is an epoxy resin system specifically designed for the casting of medium sized items. It allows for larger batches to be mixed with lower exotherm (heat generation) than other comparable systems. ULTRAPOUR® can be poured in thicknesses up to 50mm, allowing you to experience resin in a whole new way. Subsequent layers can be poured with excellent cohesion.

Product Highlights
- Contains anti-yellowing additives
- Displays excellent adhesion to other substrates and cohesion on multiple layers
- Good fluidity and de-airing properties
- FDA Approved and Non-Dangerous Goods for transport
- Easily tinted with a vast range of compatible colourants
- Low exotherm resulting in low shrinkage
- Convenient 2:1 ratio by Volume
- Fantastic clarity and visually water white

Typical Applications
- Medium sized articles such as bowls, platters and homewares
- Wood/Resin art for decorative ware, smaller River Tables and Cutting Boards
- Electrical assembly potting
- Most medium sized clear castings

Physical Properties
Part A

Viscosity	cPs @ 25ºC	1000-2000
Colour		Colourless Transparent

Part B

Viscosity	cPs @ 25ºC	100
Colour		Colourless Transparent

Handling Properties

Mix Ratio	Part A : B (by volume)	100 : 50
Potlife	500ml mass @ 23ºC	2+hrs
Cure Time	@23ºC	24-48 hours
Full Cure		7-14 days
Cured Hardness	7-14 days @23C	80-82D
Heat Distortion Temp	When properly cured	80ºC

Specific Sample for this TDS
To create this TDS, we cast a test piece with approximate specifications of:
- Total weight of final cured part 625g (approx. 600ml)
- Cast and cured at 23ºC
- Demould at 13hr
- Cast block size 103mm diameter sphere. Solid cast, single pour.
- We recommend that testing is always performed specific to your needs and methods of use.

Processing Information

(Optimal casting conditions are 23ºC and 50%R.H)

- If the cast item/part is to be used for Food Contact after curing, the temperature of the food should not exceed 50ºC
- When the relative humidity exceeds 80%, the surface of the cured product can absorb moisture and form a white mist. We suggest a fully controlled environment if casting in these conditions.
- If timber and similar objects are being embedded, it is suggested that they should be pre-sealed.
- Although ULTRAPOUR is intended primarily for medium size pours, it is also used for smaller articles as the extended “fluid time” before gelling allows for air-release. This is ideal if the user does not have a vacuum unit, however it must be noted that in smaller items the cure time can easily be up to a minimum of 48hrs.
- If the materials have been stored at temperatures below 15ºC for a prolonged period, ensure to condition the Part A material at 25-30ºC to reduce viscosity and assist in air release. The material can be cast at lower temperatures, but the user should be aware of viscosity changes at lower temperatures.
- This resin and hardener combination have been formulated with the objective of being as safe as possible, however, in common with most epoxy resins and hardeners, skin contact with uncured materials may cause irritation of sensitive skins. For this reason, contact with the uncured materials must be avoided at all times.
- Ensure that mixing & casting is performed in a well-ventilated area as some vapors may be released during cure.
- Please refer to the Materials Safety Data Sheet for more information.

Storage

Store the components in a dry place at 18 - 25 ºC, in tightly sealed original containers. It is suggested to purge moisture from the Part A containers with F720 Dry Air Spray prior to resealing the lid after use.

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1

Disclaimer