



POLYMÈRES
technologies

TECHNO CAST™ 8038

CLEAR EPOXY POTTING RESIN

PRODUCT DESCRIPTION – TECHNO CAST™ 8038

TECHNO CAST™ 8038 IS A 100% SOLID EPOXY SYSTEM ENGINEERED WITH ULTRA-LOW VISCOSITY AND EXCEPTIONAL UV RESISTANCE. ITS CONTROLLED EXOTHERMIC PROFILE ALLOWS FOR SAFE CASTING OF SMALL TO MEDIUM-SIZED PARTS WHILE ENSURING MINIMAL SHRINKAGE AND A FLAWLESS FINISH.

THIS VERSATILE SYSTEM IS IDEAL FOR A WIDE RANGE OF APPLICATIONS, INCLUDING:

- CASTING OF FIGURINES AND DECORATIVE PIECES
- REPRODUCTION OF SCULPTURES AND ART OBJECTS
- POTTING AND ENCAPSULATION OF ELECTRONIC COMPONENTS
- INDUSTRIAL PART FABRICATION
- SURFACE PROTECTION AND COATINGS

IN ADDITION TO ITS OUTSTANDING PERFORMANCE, TECHNO CAST™ 8038 IS FULLY COMPLIANT WITH EUROPEAN ROHS STANDARDS (RESTRICTION OF HAZARDOUS SUBSTANCES IN ELECTRICAL AND ELECTRONIC EQUIPMENT). THIS CERTIFICATION ENSURES THE SYSTEM IS SAFE FOR BOTH THE USER AND THE ENVIRONMENT, MAKING IT A RESPONSIBLE CHOICE FOR MODERN MANUFACTURING AND CREATIVE PROJECTS.

CHARACTERISTICS

- Excellent UV resistance.
- Luster finish
- High impact resistance
- Lower viscosity
- Excellent manipulation properties
- Crystal clear transparency
- RoHS compliant

APPLICATION

Stock **TECHNO CAST 8038** on a palet (do not store directly on the floor) or on shelving @ 22°C with relative humidity levels lower than 60%. Cold environment will increase viscosity of each part A and part B. Warmer environment will decrease viscosity.

Before using **TECHNO CAST 8038**, make sure each part is separately mix thoroughly. Start mixing resin carefully, while minimizing air entrapment by mixing slowly 5 to 10 minutes with metal spatula.

Mix **2 parts A** with **1 part B** (or **100 A/42 B** by **weight**) ensure an homogenous mix of resin making sure to scrape the edges and bottom of container.

Since system has a 25 minutes pot life @ 22°C on a 200 grams mass, do not mix more resin than you may use before gel time. Note that pot life will be decreased in a warmer environment and adversely increased under colder conditions. Manipulation time will reflect environment temperature.

Uncured components can be easily cleaned by using the **solvent T-901**.

Please consult **POLYMERES TECHNOLOGIES** for more details based on your application. support@polymerestechologies.com

TYPICAL PROPERTIES (at 22°C)

| | | PART A | PART B | MIXED |
|--------------|-------------------|-------------|--------|--------|
| Viscosity | Brookfield (cps) | 750 | 55 | 275 |
| Consistency | | Liquid | Liquid | Liquid |
| Density | g/cm ³ | 1.135 | 1.01 | 1.075 |
| Mixing Ratio | 1. By volume | 2 | 1 | 2/1 |
| | 2. By weight | 100 | 42 | 100/42 |
| Color | | Clair amber | Clear | Clear |
| Pot life | | 25 minutes | | |



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| | | |
|-----------------------------|----------------|------------|
| Gel time | | 30 minutes |
| Peak exothermic temperature | ASTM D 2471-71 | 142°C |
| Full cure* | | 7 days |

* After material has solidified full cure can be accelerated at 51.7°C (125°F).



PHYSICAL PROPERTIES (solid state) 7 days after cure at 22°C

| TEST | METHOD | RESULTS | |
|---|---------------------|--|-------------------------|
| Hardness | ASTM D 785 65 | Shore D | 81 |
| Compressive strength | ASTM D 695 80 | MPa [†] % max. strain | 53 6% |
| Tensile Strength | ASTM D 638 TYPE 1 | MPa | 43 |
| Flexural Strength | ASTM D 790A | MPa | 67 (no failure) |
| Elongation | ASTM D-790A | Mpa | 4% |
| Deflection Temperature | | 1. 455 kPa [‡] 2. 1820 kPa | 44°C 37°C |
| Impact Resistance | ASTM D 256 81 | J/m [§] | 79 |
| Linear Shrinkage | ASTM D 2566 79 | cm/cm | 0.009 |
| Abrasion Resistance | TABER CS 17-1000 GR | | 0.062 |
| Coefficient of Linear Thermal Expansion | ASTM D 696 79 | | 8.63 x 10 ⁻⁵ |

PRECAUTIONS

- Consult Material Safety Data Sheet prior to use.
- Do not mix more material than possible to apply within the recommended pot life.
- Ensure proper ventilation.
- Shelf life of product in original closed containers is **one (1) year**.
- Once the container is opened **POLYMÈRES** has no control or responsibility for the shelf life.
- It is recommended to follow Provincial and Federal safety regulations. In case of eye contact, rinse well with water, in case of skin contact, rinse with soap and water. Keep away from children.

GUARANTEE

Having no control on the use and applications of this product, the manufacturer and/or distributor cannot guarantee the results achieved. The warranty is therefore limited to the replacement of a product whose user can demonstrate, in a way that is satisfactory to both manufacturer and distributor, that it is in fact defective. Before using this product, the user must ensure that it is appropriate for the chosen purpose. The user assumes all risks related to this use. The user must ensure that the product meets his or her needs by testing it at the short, medium, and long-term to validate the results in the intended operating conditions and following the prepared instructions. This limited warranty disclaims any liability for indirect, accidental, or special damages. Except for the warranty described above, the user expressly recognizes and accepts that, upon purchase of this product, the manufacturer and/or distributor disclaim any other responsibility and that any other warranties, express or implied, related to a warranty of merchantability and to an implicit warranty related to the quality of materials are expressly excluded.

[†] MPa = 145 lb
[‡] kPa = .145 psi
[§] 53.4 J/m = 1 blF/inch