POLYMÈRES technologies

TECHNO CAST 3160

Polyurethane casting resin

DESCRIPTION

TECHNO CAST 3160 is 100% solids, two component, outstanding elastomeric casting system.

TECHNO CAST 3160 is primarily formulated for the manufacturing of industrial molds and technical parts which require excellent abrasion resistance, high tear resistance and elongation rate, the best of the industry. Among the applications for this system you will find molds for concrete castings such as stones, bricks, pavers and any concrete casting products which possess strong negative angles. It can also be used as gaskets, engineering parts, prototypes, seals, molds with reverse relief among others.

Its low viscosity allows a high quality reproduction of fine details on the surface of models.

CHARACTERISTICS

- Economical
- Low viscosity, fast set
- High wear resistance
- Flexible with good tensile/elongation & tear strength
- May be used as an elastomeric potting compound for electrical parts

APPLICATIONS

Mix equal quantity of parts A and B until homogeneity is obtained. Minimize air entrapment as much as possible.
The use of **TECHNO RELEASE 113** is recommended to facilitate the demoulding operation.
Non cured material can be cleaned with the solvent **T-905** or **T-914**.
Moulds can be heated to accelerate the demoulding operation.

Please consult **POLYMERES TECHNOLOGIES** for more details based on your application.

TYPICAL PROPERTIES (at 22°C)

		PART A	PART B	MIXED
Viscosity	Brookfield (cps)	1 000	1 500	1 300
Consistency		Liquid	Liquid	Liquid
Density	g/cm^3	1.04	1.07	1.062
Mixing Ratio	1. By weight	100	99.3	100/99.3
	2. By volume	1	1	1/1
Color		Clear amber	Clear amber	Clear amber
Pot life 200 cc 19 litres		20 minutes 15 minutes		
Demoulding time		12 – 48 hours		
Full cure at 25°C		4 days[1]		

[1] After material has solidified the curing process can be accelerated at 52°C (125°F).

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

TEST	METHOD	RESULTS	
Hardness	ASTM D 2240	Shore A	57 – 63*
Tensile strength	ASTM D 638 M TYPE IV	MPa[1]	6.0
Elongation at break	ASTM D 638 M TYPE IV	%	960
Linear shrinkage	ASTM D 2566	%	0.001
Tear Strength	ASTM D 624 DIE C	MPa	39.7 N/mm thickness (226 lbs/in thickness)

PRECAUTIONS

- Consult Material Safety Data Sheet prior to use.
- Do not apply at temperature lower than 13°C (55°F) and relative humidity higher than 80%, as some surface micro bubbling may occur.
- Do not mix more material than it is possible to apply within the recommended pot life which is 15 minutes.
- Normal health and safety precautions should be observed when handling these products :
  - Ensure good ventilation
  - Wear gloves, safety glasses and waterproof clothes.
- Shelf life of product in original closed containers is **one** (**1**) **year**.
- **SHELF LIFE:** The shelf life on **POLYMÈRES** products begins from the date of invoice for that product shipment. **POLYMÈRE's** shelf life only pertains to containers that are unopened and in their original condition.
- **RESEALING:** Many polymers are moisture sensitive, reseal, using one of the following two (2) methods: blanket with nitrogen or use a hair dryer for 30 seconds to cover with dry air **TECHNO DRY 7477**.
- 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
Seller makes no warranty of any kind, express or implied, as to the merchantability, fitness for any particular purpose, or any other matter with respect to the product **TECHNO CAST 3160**. Since conditions of use are beyond seller's control, buyer assumes all risk of use of this product. Under no circumstances will seller be liable for consequential or incidental damages arising out of the use of this product. Seller's sole obligation shall be to replace the product if found to be defective. It is the user's responsibility to determine the suitability for use of this product under the conditions present at the time of application. M.S.D.S. available upon request.

[1] 1 MPa = 145 lb