



POLYMÈRES
technologies

TECHNO CAST 3053 FR

Polyurethane resin
fire resistant

DESCRIPTION

TECHNO CAST 3053FR is a two component, 100% solids polyurethane elastomeric moulding compound.

TECHNO CAST 3053FR is primarily formulated for the manufacturing of flexible moulds or units used in various industrial applications requiring maximum physical properties.

should be meet fire resistant UL-94V0.

CHARACTERISTICS

- Moderate viscosity for easy pour and excellent detailing and filling properties
- Low exothermic reaction
- Good wear resistance
- Extremely low linear shrinkage
- Can easily be used with mechanical mixing and dispensing equipment
- Can be use with filler agent **TECHNO FILLER 180** and **TECHNO FILLER 162**.
- Flame retardant, meets UL 94V-0

APPLICATIONS

Mix part A in original container as some settling is normal on standing.

Add 1 part B to 2 part A by volume, mix well until colour is uniform. Minimize air entrapment while blending.

Unreacted material and equipment can be cleaned with **solvent 905**.

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

TYPICAL PROPERTIES (at 22°C)

		PART A	PART B	MIXED
Viscosity	Brookfield (cps)	6 500	600	3 500
Density	g/cm ³	1.65	1.21	1.50
Mixing Ratio	1. By weight	100	36.7	100/36.7
	2. By volume	2	1	2/1
Color		White	Clear yellow	White
Pot life	ASTM D 2471 200 cc	10 minutes at 22°C		
Peak exothermic temp.	200 cc	70 – 75°C		
Set time	Depending of mass 90% cure day	4 - 5 hours at 22°C		
90% cure		1 day at 22°C		
Full cure		7 days at 22°C		



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

TEST	METHOD	RESULTS	
Hardness 1 day cure 7 days cure 28 days cure	ASTM D 2240	Shore D	67 76 78
Compressive Strength	ASTM D 695	MPa	38.5
Modulus of elasticity in compressive	ASTM D 695	Mpa	1 387
Tensile strength	ASTM D 638 TYPE IV	MPa ¹	24.0
Modulus of elasticity in tension	ASTM D 638 TYPE IV	MPa	1 148
Elongation	ASTM D 638 TYPE IV	%	4.3
Flexural Strength	ASTM D 790	MPa	33.5
Modulus of elasticity in flexion	ASTM D 790	MPa	1 538
Abrasion Resistance Taber	CS 17-1000 gr gm loss/1000 cycles	ASTM D 4060	0.136
Linear Shrinkage 7 days 14 days	ASTM D 2566	(mm/mm)	0.0013 0.0016

PRECAUTIONS

- Consult Material Safety Data Sheet prior to use.
- Normal health and safety precautions should be observed when handling these products :
 - Ensure good ventilation
 - Wear gloves, safety glasses and waterproof clothes.
- Do not use material at temperature lower than 5°C (40°F). Curing the system will vary with ambient temperature.
- 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

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.

¹ 1 MPa = 145 lb