F 38

FASTCAST URETHANE RESIN
GOOD IMPACT RESISTANCE
DEMOULDING 25 min

DESCRIPTION

Casting system to produce models and prototypes in the model building.

PROPERTIES

- *Good impact resistance*
- *Short demoulding time*
- *Low viscosity*
- *Thermoplastic aspect*
- *Low shrinkage*
- *Easy to mix ratio*
- *Good ability for being painted*

PHYSICAL PROPERTIES				
Composition		**Polyol**	**Isocyanate**	**MIXED**
Mix ratio by weight Mix ratio by volume at 25°C		100 100	100 85	
Aspect		liquid	liquid	liquid
Colour		transparent	amber	off-white
Viscosity at 25°C (mPa.s)	BROOKFIELD LVT	35	40	35
Specific gravity at 25°C (g/cm^3) Specific gravity of cured product at 23°C	ISO 1675 : 1985 ISO 2781 : 1996	0.98	1.16	- 1.07
Pot life at 25°C on 200 g (min)	Gel Timer TECAM			2

MECHANICAL PROPERTIES at 23°C (1)			
Finale Hardness	ISO 868 : 2003	Shore D1 / D15	70 / 72
Tensile strength	ISO 527 : 1993	MPa	28
Elongation at break	ISO 527 : 1993	%	10
Flexural modulus	ISO 178 : 2001	MPa	750
Flexural strength	ISO 178 : 2001	MPa	32
Compressive strength at yield	ISO 604 : 2002	MPa	20
Impact strength (CHARPY) *Unnotched specimens*	ISO 179/1eU : 1994	kJ/m^2	30

(1) : Hardening conditions of the material before test : 7 days at room temperature.
This ageing corresponds to the optimal stabilisation of this material.

PROCESSING CONDITIONS

Before use, Polyol must be mixed until both colour and aspect become homogeneous. Polyol and Isocyanate must be mixed at a temperature above 18°C according to the indicated mixing ratio. A casting thickness of no more than 2 mm is advised. Before casting check that parts or moulds are free of any trace of moisture.
Silicone elastomer ESSIL 125 is particularly well suited for the production of moulds for casting F 38.
The maximum casting thickness is 5 – 10 mm.

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THERMAL AND SPECIFIC PROPERTIES (1)			
Working temperature	-	°C	-20 / +60
Deflection temperature	ISO 75 : 2004	°C	55
Linear shrinkage (3 mm thickness)	-	mm/m	1.5
Maximal casting thickness	-	mm	5 - 10
Demoulding time at 23°C (according to thickness and form)	-	min.	20 - 25
Complete hardening at 23°C	-	days	3

HANDLING PRECAUTIONS

Normal health and safety precautions should be observed when handling these products :
- *ensure good ventilation*
- *wear gloves and safety glasses.*

For further information, please consult the product safety data sheet.

STORAGE CONDITIONS

Shelf life is 6 months for Polyol and 12 months for Isocyanate in a dry place and in their original unopened containers at a temperature between 15 to 25°C.
Any open can must be tightly closed under dry inert gas (dry air, nitrogen, etc.).

PACKAGING

POLYOL	***ISOCYANATE***
1 x 5,0 kg	*1 x 5,0 kg*

GUARANTEE

The information contained in this technical data sheet result from research and tests conducted in our Laboratories under precise conditions.
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