ISOCYANATE UR 5803
POLYOL UR 58300
POLYURETHANE CASTING ELASTOMER
Pot life 15-20' – Hardness 30 A Shore

DESCRIPTION

PU elastomer designed to make moulds for concrete industry by hand casting or with a 2 K machine.

PROPERTIES

- *Two-component liquid polyurethane resin*
- *High elongation at break*
- *Solvent and mercury free*
- *Chemical stability*

PHYSICAL PROPERTIES				
Composition		**ISOCYANATE UR 5803**	**POLYOL UR 58300**	**MIXED**
Mix ratio by weight		10	100	
Aspect		Liquid	Liquid	Liquid
Colour		Amber	Beige	Beige
Viscosity at 25°C (mPa.s)	BROOKFIELD LVT	2000	6900	4000
Specific gravity at 25°C (g/cm^3) Specific gravity of cured product at 23°C	ISO 1675 : 1985 ISO 2781 : 1996	1.16 -	1.37 -	- 1.35
Pot life at 25°C on 165 g (min)	Gel Timer TECAM			15 - 20

MECHANICAL PROPERTIES at 23°C (1)			
Hardness	ISO 868 : 2003	Shore A1	30
Tensile strength	ISO 37 : 2011	MPa	1.55
Elongation at break	ISO 37 : 2011	%	900
Tear strength *Unnotched angular specimens*	ISO 34 : 2004	kN/m	6
Abrasion resistance (TABER)	ISO 5470 : 1999	mm3 / 100U	120

PROCESSING CONDITIONS

The Polyol part is filled and may show a slight settling; this part must be stirred before any use (homogenous aspect and color without any settling in the container). This operation is easily processed by hand or thanks to a stirring machine.

The Isocyanate part may crystallize (hazy aspect); it must be set in an oven at 60°C until total decrystallization. Homogenize and cool down to room temperature before any use.

Both parts (Polyol and Isocyanate) have to be mixed at a higher temperature or equal to 18°C, according to the mix ratio mentioned in this technical data sheet. Before casting, make sure that tools are moisture free.

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THERMAL AND SPECIFIC PROPERTIES (1)			
Glass transition temperature (Tg)	ISO 11357-2 : 1999	°C	> 0
Maximal casting thickness	-	mm	80
Demoulding time at 23°C	-	Hours	24
Complete hardening time at 23°C	-	Hours	120

(1) Average values obtained on standardized specimens / Hardening: 16h à 70°C

PROCESSING ADVICES

- *Heat both components and model up to 23°C in case of storage at a lower temperature*
- *Homogenize the Polyol part before any use*
- *Mix ratio accuracy is 2% weight*
- *Mix cautiously in a dry and clean container*
- *Cast on a dry model already treated with a release agent*
- *Cure at room temperature (23°C)*
- *Demould after 24h at 23°C*
- *To achieve the highest properties, leave the mould at 23°C for 5 days before any use*
- *In case of use of a 2K machine, make sure with the supplier of its appropriateness, accuracy and maintenance*

Following these advices guarantees an optimal use of the moulds.

HANDLING PRECAUTIONS

Normal health and safety precautions should be observed when handling these products:

- *Ensure good ventilation*
- *Wear gloves, safety glasses and protective clothes*

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

STORAGE CONDITIONS

Shelf life of the Isocyanate part is 6 months and 12 months for the Polyol part, in a dry place and in their original unopened containers at a temperature between 15 and 25°C.
Any open can must be tightly closed under dry nitrogen. Prolonged storage of UR 5803 to a temperature above 45°C increases viscosity with rapid loss of final properties.

PACKAGING

ISOCYANATE UR 5803	*POLYOL UR 58300*
1 x 5 Kg *1 x 2.5 Kg*	*1 x 25 Kg*

GUARANTEE

The information contained in this technical data sheet result from research and tests conducted in our Laboratories under precise conditions. It is the responsibility of the user to determine the suitability of AXSON products, under their own conditions before commencing with the proposed application. AXSON guarantee the conformity of their products with their specifications but cannot guarantee the compatibility of a product with any particular application. AXSON disclaim all responsibility for damage from any incident which results from the use of these products. The responsibility of AXSON is strictly limited to reimbursement or replacement of products which do not comply with the published specifications.

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