UR 5805 ISOCYANATE
UR 58720 POLYOL

POLYURETHANE CASTING ELASTOMER

Hardness : 70 A Shore – Cold curing – 15-20' Pot Life

DESCRIPTION

Polyurethane casting elastomer designed to produce moulds or flexible parts, by hand casting or with help of 2K machine.

PROPERTIES

- *Easy processing*
- *Excellent tear strength*
- *Good resistance against release agents for cement concrete*
- *Solvent and mercury free*

PHYSICAL PROPERTIES				
Composition		**ISOCYANATE UR 5805**	**POLYOL UR 58720**	**MIXED**
Mix ratio by weight Mix ratio by volume at 25°C		30	100	
Aspect		liquid	liquid	Liquid
Colour		straw yellow	beige	beige
Viscosity at 25°C (mPa.s)	BROOKFIELD LVT	450	1500	1000
Specific gravity at 25°C (g/cm^3) Specific gravity of cured product at 23°C	ISO 1675 : 1985 ISO 2781 : 1996	1.21 -	1.22 -	- 1.25
Pot life at 25°C on 130 g (min)	Gel Timer TECAM			15 - 20

MECHANICAL PROPERTIES at 23°C (1)			
Hardness	ISO 868 : 2003	Shore A1 / A15	75 / 71
Tensile strength	ISO 37 : 2011	MPa	9
Elongation at break	ISO 37 : 2011	%	700
Tear strength *Unnotched angular specimens*	ISO 34 : 2004	kN/m	31
BASHORE resilience	ASTM 2632 : 1992	%	30
Abrasion resistance (TABER)	ISO 5470 : 1999	mm3 / 100U	40

(1) Average values obtained on standardized specimens / Hardening: 2h at 23°C in a mould at 40°C + 12h at 80°C

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			
Working temperature	-	-	- 20 / + 70 °C
Glass transition temperature (tg)	ISO 11359-2 : 1999	°C	< 0
Linear shrinkage (specimen 1020x140x100mm)	-	mm/m	5.9
Maximal casting thickness	-	mm	100

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*
- *Cure at room temperature (23 ± 2°C)*
- *Demould after 24h at 23 ± 2°C*
- *Leave the mould at 23 ± 2°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 both components is 9 months, 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.

PACKAGING

ISOCYANATE UR 5805	*POLYOL UR 58720*
1 x 11 kg	*2 x 18.3 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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