UR 3450 ISOCYANATE
UR 3460 POLYOL

BUILDING TRUST

POLYURETHANE CASTING ELASTOMER
HARDNESS 85 A SHORE – COLD CURING

DESCRIPTION

Casting system used for production of semi flexible moulds, forming tools or parts requiring good abrasion and tear resistance properties

PROPERTIES

- *Good tear resistance*
- *Very good hydrolysis resistance*
- *High abrasion resistance*
- *Good elongation at break*

PHYSICAL PROPERTIES					
Composition			**ISOCYANATE UR 3450**	**POLYOL UR 3460**	**MIXED**
Mix ratio by weight Mix ratio by volume at 25°C			100 100	40 42	
Aspect			liquid	liquid	liquid
Colour			colourless	black	black
Viscosity at 25°C	(mPa.s)	BROOKFIELD LVT	19,000	250	3,600
Specific gravity at 25°C Specific gravity of cured product at 23°C	(g/cm^3)	ISO 1675 : 1985 ISO 2781 : 1996	1.08 -	1.03 -	- 1.09
Pot life at 25°C on 140 g	(min)	Gel Timer TECAM			20

MECHANICAL PROPERTIES at 23°C (1)			
Hardness	ISO 868 : 2003	Shore A1 / A15	85 / 84
Tensile strength	ISO 37 : 2004	MPa	17
Elongation at break	ISO 37 : 2004	%	810
Tear strength *Unnotched angular specimens*	ISO 34 : 2004	kN/m	83
BASHORE resilience	ASTM 2632 : 1992	%	42
Abrasion resistance (TABER)	ISO 5470 : 1999	mg / 100U	18

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PROCESSING CONDITIONS

Both parts (polyol and isocyanate) have to be mixed at a temperature equal or higher than 18°C according to the mixing ratio indicated on this technical data sheet. Isocyanate should be heated to make it more fluid but pot life will be reduced. Before casting, make sure that parts or moulds are free of any trace of moisture

THERMAL AND SPECIFIC PROPERTIES (1)			
Working temperature	-	-	- 40 / + 80
Glass transition temperature (tg)	ISO 11357-2 : 1999	°C	- 65
Coefficient of thermal expansion (CTE) (0°C to +40°C)	ISO 11359-2 : 1999	10^{-6} K^{-1}	200
Linear shrinkage (specimen 250x50x3mm)	-	mm/m	3
Maximal casting thickness	-	mm	80
Demoulding time - at 23°C - at 80°C		hours	24 2
Complete hardening time - at 23°C - at 80°C (curing after gelification)		hours	144 4

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

HANDLING PRECAUTIONS

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

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

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

STORAGE CONDITIONS

Shelf life is 12 months in a dry place and in original unopened containers at a temperature between 20 and 25°C. Any open can must be tightly closed under dry nitrogen.

Important: *if stored at a temperature lower than15°C, iso may crystallize. The component must be placed for 4 to 6 hours in an oven at 50°C until decrystallisation.*
Carefull: *Excessive heating of both components may cause a degradation of the final product (temperature > 60°C or heating time > 12 hours).*

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PACKAGING

ISOCYANATE UR 3450	*POLYOL UR 3460*
6 x 1 kg *1 x 20 kg*	*6 x 0.4 kg* *1 x 8 kg*

GUARANTEE

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

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