

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		100	40	
Mix ratio by volume at 25°C		100	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 (g/cm ³)	ISO 1675 : 1985	1.08	1.03	-
Specific gravity of cured product at 23°C	ISO 2781 : 1996	-	-	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 <i>Unnotched angular specimens</i>	ISO 34 : 2004	kN/m	83
BASHORE resilience	ASTM 2632 : 1992	%	42
Abrasion resistance (TABER)	ISO 5470 : 1999	mm ³ / 100U	18

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		hours	24
- at 23°C			2
- at 80°C			
Complete hardening time		hours	144
- at 23°C			4
- at 80°C (curing after gelification)			

(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 than 15 °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).

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 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. .