

APPLICATIONS

Used by vacuum casting in silicon moulds for making prototype parts and mock-ups with mechanical properties similar to thermoplastics like polystyrene and filled ABS.

PROPERTIES

- ABS type prototype parts
- High mechanical properties
- Easy processing
- Good heat resistance up to 100°C

Composition		UP 4280-C - K - N POLYOL	UP 4280-2 ISOCYANATE	MIXED
Mix ratio by weight		100	200	
Aspect		liquid	liquid	liquid
Colour		C=Light amber K=Black N=Cream	Colourless	C/2=Off white K/2=Black N/2=Light beige
Viscosity at 23°C (mPa.s)	BROOKFIELD LVT	700	175	300
Specific gravity at 25°C Specific gravity of cured product at 23°C	ISO 1675 :1975 ISO 2781 :1988	1.06 -	1.17 -	- 1.12
Pot life at 25°C on 100 g (min)				4 - 5

PROCESSING CONDITIONS (Vacuum casting machine)

- Heat both parts (isocyanate and polyol) at 23°C in case of storage at lower temperature.
- In case of UP 4280 isocyanate crystal, heat it up to 70°C for 1 hour. Anyway, the heating time can not be over 4 hours.
- *Before use it is necessary to stir the polyol until both color and aspect become homogeneous.*
- Weigh both 2 parts.
- After degasing for 10 minutes under vacuum, mix for 1 minute minimum.
- Cast under vacuum in silicone mould previously heated at 70°C.
- Cure at 70°C for 40 minutes, then demould after cooling down below 50°C.

MECHANICAL PROPERTIES at 23°C			
Hardness	Shore D	ISO 868 : 2003	82
Tensile strength	MPa	ISO 527 : 1993	86
Flexural strength	MPa	ISO 178 : 2010	100
Flexural modulus	MPa	ISO 178 : 2010	2100
Elongation at break	%	ISO 527 : 1993	17
Impact strength (IZOD)	J/m	ISO 179/1eU:2010	80

THERMAL AND SPECIFIC PROPERTIES			
Heat deflection temperature	°C	ISO 75-2: 2004	100
Linear shrinkage (2 mm)	%		0.3
Demoulding time (2mm) at 60 - 70°C	min		30 - 40

Typical Cure schedules

- 1) 30 minutes at 70°C in 2mm thickness
- 2) 40 minutes at 70°C in 0.5mm thickness

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 is 6 months in a dry place and in original unopened containers at a temperature between 15 and 25° C. Any open can must be tightly closed under dry nitrogen blanket.

PACKAGING

UP 4280-C/2 (2x1+4x1)KG

UP 4280-N/2 (2x1+4x1)KG

UP 4280-K/2 (2x1+4x1)KG

UP 4280-/2 10x1 kg

UP 4280-C, K,N POLYOL 10x1 kg

GUARANTEE



UP 4280

Vacuum casting polyurethane
for technical parts and prototypes
Flexural Modulus 2100MPa, HDT 100°C

The information of our technical data sheet are based on our present knowledge and the result of tests conducted 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 refuse any guarantee about 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 guarantee conditions are regulated by our general sale conditions.

Page 3/2- 11 May. 2010

AXSON France
BP 40444
95005 Cergy Cedex
FRANCE
Tel. (33) 134403460
Fax (33) 134219787
Email : axson@axson.fr

AXSON GmbH
Dietzenbach
Tel. (49) 6074407110

AXSON Italie
Saronno
Tel. (39) 0296702336

AXSON IBERICA
Barcelona
Tel. (34) 932251620

AXSON UK
Newmarket
Tel. (44)1638660062

AXSON ASIA
Seoul
Tel. (82) 25994785

AXSON MEXICO
Mexico DF
Tel. (52) 5552644922

AXSON JAPAN
OKAZAKI CITY
Tel.(81)564262591

AXSON NA USA
Eaton Rapids
Tel. (1) 5176638191

AXSON SHANGHAI
Zip: 200131
Shanghai
Tel. (86) 58683037
Fax.(86) 58682601
E-mail: shanghai@axson.cn
Web: <http://www.axson.com.cn>