

DESCRIPTION

Negatives, moulds masters and mock-ups using the unfilled product or filled with RZ 30150 mineral filler in order to limit exothermal reaction and to get easy machining.

Thermoforming tools using the product filled with RZ 209/6 aluminum powder in order to increase its thermal conductivity.

PROPERTIES

- Very low shrinkage
- Low viscosity even filled
- Easy to use mix ratio (1:1 by weight)
- High filler content possible

PHYSICAL PROPERTIES

Composition		POLYOL F190	ISOCYANATE F190	UNFILLED MIXED	MIXING FILLED WITH RZ 30150
Mix ratio by weight		100	100	-	360
Aspect		Liquid	Liquid	Liquid	Liquid
Colour		Beige	Amber	Off-white	Off-white
Viscosity at 25°C (mPa.s)	BROOKFIELD LVT	90	55	90	2900
Specific gravity at 25°C (g/cm ³)	ISO 1675 : 1985	0.99	1.11	-	-
Specific gravity of cured product at 23°C	ISO 2781 : 1996	-	-	1.07	1.62
Pot life at 25°C on 100 g (min)	Gel Timer TECAM	-	-	7 - 9	12 - 14

MECHANICAL PROPERTIES at 23°C (1)

			UNFILLED MIXED	MIXING FILLED WITH RZ 30150
Hardness	ISO 868 : 2003	Shore D1	70	79
Flexural modulus	ISO 178 : 2010	MPa	1300	4150
Flexural strength	ISO 178 : 2010	MPa	47	44
Compressive strength at yield	ISO 604 : 2002	MPa	36	50
Impact strength (CHARPY) Unnotched specimens	ISO 179/1eU : 1994	kJ/m ²	19	-

(1): Average values obtained on standard specimens / Hardening 16hr at 80°C

PROCESSING CONDITIONS

The Polyol part is filled and presents a settling. It is important to stir this part until both color and aspect become homogeneous (without settling in the container bottom). This operation can be easily done by hand. Polyol and Isocyanate must be mixed together at a temperature equal or above 18°C according to the indicated mix ratio. Prior to cast, please check that parts or moulds are free of any traces of moisture to avoid bad surface aspect.

For casting thicknesses above 10 mm, it is advised to add fillers as follows (ratio by weight):

POLYOL	ISOCYANATE	RZ 30150	RZ 209/6
100	100	360	360

It is recommended to add 180g to 200g of fillers into 100g of polyol (mix until mixture becomes homogeneous), add 180g to 200g of fillers into 100g of isocyanate (mix until mixture becomes homogeneous), then mix the two parts together.

THERMAL AND SPECIFIC PROPERTIES (1)				
Composition			UNFILLED MIXED	MIXING FILLED WITH RZ 30150
Glass transition temperature (tg)	ISO 11359-2 : 1999	°C	90	100
Coefficient of thermal expansion (CTE) (+20°C to +70°C)	ISO 11359-2 : 1999	10 ⁻⁶ K ⁻¹	150	75
Linear shrinkage - thickness 10 mm - thickness 50 mm	-	mm/m	3 -	- 0.4
Demoulding time at 25°C for: - thickness 10 mm - thickness 40 mm	-	min	90 -	- 90

(1): Average values obtained on standard specimens / Hardening 16hr at 80°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 of both parts is 12 months in a dry place and in their original unopened containers at a temperature between 15 and 25°C

Any open must be tightly closed under dry nitrogen.

PACKAGING

ISOCYANATE F190	POLYOL F190	KIT
1 x 4.5 Kg 1 x 18 Kg	1 x 4.5 Kg 1 x 18 Kg	1 x (4.5 + 4.5) Kg 1 x (18 + 18) 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.