



BUILDING TRUST



# F190 ISOCYANATE

## F190-1 POLYOL

### FASTCAST POLYURETHANE

#### CAN BE FILLED

POT LIFE 7'30 - LOW SHRINKAGE

## APPLICATIONS

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

- Easy to use mix ratio (1:1 by weight)
- Low viscosity
- Fast demolding time
- Low shrinkage
- Adequate viscosity even with high rate filler
- REACH and ROHS compliant

### PHYSICAL PROPERTIES

Composition		POLYOL	ISOCYANATE	UNFILLED MIXING	MIXING FILLED RZ 30150
Mixing ratio by weight		100	100	-	360
Aspect		Liquid	Liquid	Liquid	Liquid
Color		Beige	Amber	Beige	Beige
Viscosity at 25°C (mPa.s)	BROOKFIELD LVT	80	110	125	2000
Density of liquid parts (g/cm <sup>3</sup> )	ISO 1675	0.99	1.11	-	1.67
Density of cured mixing at 23°C	ISO 2781	-	-	1.07	
Pot life at 25°C on 200g (min)	Gel Timer TECAM			6'30 - 8'30	10 - 12

### MECHANICAL PROPERTIES AT 23°C (1)

Hardness	ISO 868	Shore D1	68	76
Flexural modulus	ISO 178	MPa	1250	4000
Flexural strength	ISO 178	MPa	40	30
Compressive strength	ISO 604	MPa	35	47
Charpy impact resistance <i>Unnotched test samples</i>	ISO 179/1eU	kJ/m <sup>2</sup>	20	4

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



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### THERMAL AND SPECIFIC PROPERTIES

Glass transition temperature (Tg) (1)	ISO 11359-2	°C	90	93
Coefficient of thermal expansion (CTE) (+15°C to +90°C)	ISO 11359-2	10 <sup>-6</sup> K <sup>-1</sup>	155	90
Demolding time at 25°C : - thickness 10 mm - thickness 40 mm	Internal method	min	90 -	- 105
Linear shrinkage at 23°C: - thickness 10 mm - thickness 50 mm	Internal method	mm/m	5,5 -	- 3,5

### PROCESSING CONDITIONS

Before use, the polyol must be mixed until both color and aspect become homogeneous. The polyol and the Isocyanate must be mixed at a temperature equal or above 18°C according to the mix ratio indicated on this technical data sheet.

For casting thicknesses above 10 mm, it is recommended to add filler as follows:

- up to 360 phr of RZ 30150 filler (mineral filler)
- up to 360 phr of RZ 209/6 filler (aluminium powder)

We advise to add half of the total quantity of fillers in each of the two parts. Mix and homogenize them separately prior to mix these two pre-filled parts together.

### HANDLING PRECAUTIONS

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

- Ensure good ventilation,
- Wear gloves and safety glasses and 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 to 25°C. Any open must be tightly closed under dry inert gas (dry air, nitrogen, etc.).

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# F190 ISOCYANATE F190-1 POLYOL FASTCAST POLYURETHANE CAN BE FILLED POT LIFE 7'30 - LOW SHRINKAGE

## PACKAGING

F180-1 POLYOL	F180 ISOCYANATE	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

Information of our technical data sheet is 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 for his application under his own conditions. AXSON refuses any guarantee about the compatibility of a product with any particular application. AXSON disclaims 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.

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