

## SLATEX HD Black

### 2 component polyurethane for rigid cast manufacturing

2 component polyurethane elastomer with ultra fast hardening profile.

Low viscosity, self levelling, self defoaming system.

Excellent chemical resistance to hydrocarbons and aqueous solutions, high puncture and abrasion resistance.

#### Typical range of use

- Rigid moulding
- Quick master manufacturing
- Tooling for casting : plaster, resins, synthetic stone
- Low thickness mass casting (plots, bumpers, anti vibrating parts)
- Form covering: concrete coffering, master finishing before moulding, advertising volumes...

#### Component properties

		SLATEX HD Black Part A	SLATEX HD Black Part B
Chemical nature		Filled polyol	Isocyanate
Colour		Black	Dark yellow
Solid content		100 %	100 %
Density	20°C	1.73 ± 0.05	1.24 ± 0.05
Pycnometer NF EN ISO 2811-1			
Viscosity (mPa.s)	15 °C	2 600 ± 520	590 ±120
Rheometer	20 °C	1 960 ± 390	360 ± 70
CP 50 mm	25 °C	1 500 ± 300	240 ± 40
Shear rate 10 s <sup>-1</sup>	30 °C	1 170 ± 230	160 ± 30
	40 °C	740 ± 150	85 ± 15
Storage 5 – 35°C, Away from bad weather, in original container		6 months May settle after storage	6 months reacts with ambient humidity

#### Mix properties

		SLATEX HD Black Part A / SLATEX HD Black Part B
Weight ratio		100 g / 50 g
Volume ratio		100 ml / 70 ml
Viscosity (mPa.s)		
Rheometer	20 °C	1 000 ± 200
PP 50 mm	30 °C	800 ± 160
Shear rate 10 s <sup>-1</sup>	40 °C	600 ± 120

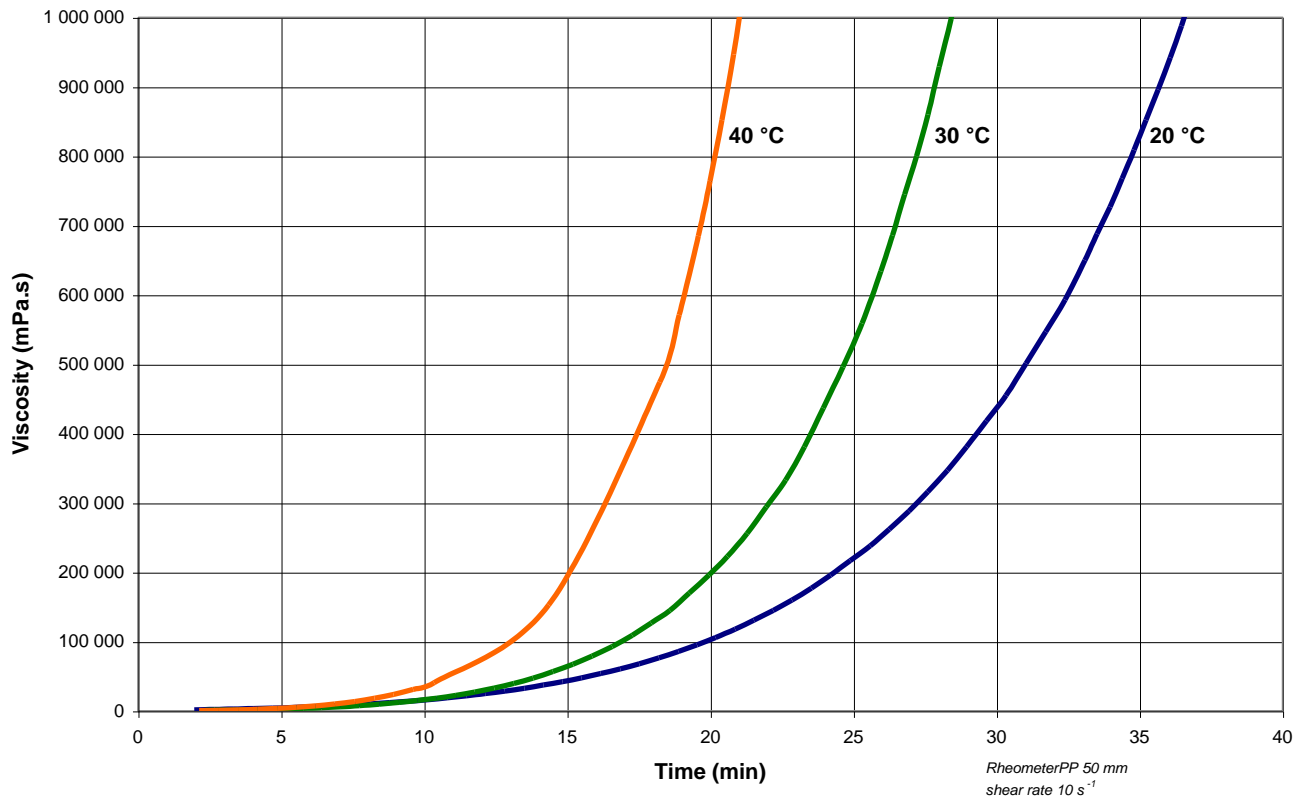
## Elastomer properties at 20 °C

	SLATEX HD Black Part A / SLATEX HD Black Part B
Shore D hardness DIN 53505 - ISO 868	90 ± 5
Density	1,58 ± 0,05
Tensile strength resistance NFT 46002 H1 450 mm / mn	30 ± 5 Mpa
Tensile strain at rupture Flexion strain at rupture 1,24 mm / mn	30 ± 5 % > 50 Mpa
Compressive max stress	> 50 Mpa
AFNOR classification	Famille I Classe 6A
Glass transition ISO 11357-2 : 1999 / DSC Onset	35 - 40 °C

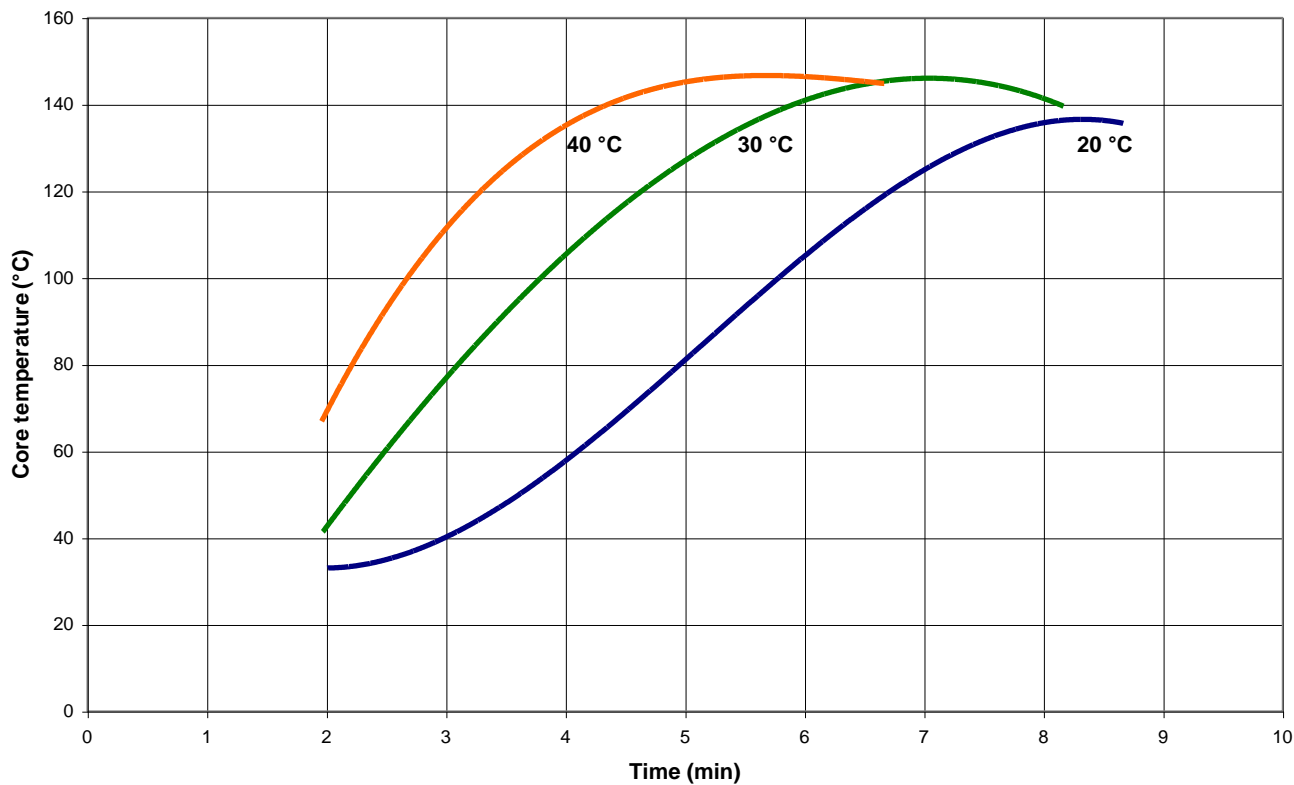
## Mix reactivity with 66% relative humidity

	+ 10 °C	+ 20 °C	+ 30 °C
Practical duration of use	20 mn	15 mn	10 mn
Dust free	30 mn	25 mn	20 h
Usable after	3 h	2 h	1 h
Totally hardened	12 h	8 h	6 h

### Reactivity – 1 mm film reactivity evolution



### Reactivity – 500 g / 320 ml mix pot life :



## **Processing**

### **- mixing :**

After a good mixing of the part A alone, drop the part B onto the part A then mix thoroughly with a slow mixer during 1 to 2 minutes to avoid any air bubbles inclusion.

### **- weather conditions :**

The use should not happen while it is rainy or too wet .

Both product and substrates temperatures should be 3°C above the dew point

### **- Moulding :**

Moulding must be done with a clean and dry mould

The tooling should be treated with a release agent : Cirex Si 111, Cirex Si 68 or Cirex Si 041 WB

### **- Tools cleaning :**

Cleaning solvents : White spirit, MEK, acetates, Xylenes, ketones.

Alcohols, aqueous detergents, water should not be used.

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