



## Prepolymer HC-6285ABC

**1.Character:** Based on MDI polyether type high-performance polyurethane prepolymer. The products have the advantages of good elasticity, high mechanical strength, good wear resistance and easy for using.

**2.Applications:** It is mainly used for the production of polyurethane elastomer with special requirements, such as mechanical parts, screen, timing belt, piston, sealing ring, etc.

### 3. Typical Properties:

Name \ Item	Appearance (25°C)	Viscosity under processing	NCO (NCO%)	specific gravity (g/cm <sup>3</sup> )	Shelf life (month)
HC-6285B	Viscous transparent liquid	600/40°C	13.5±0.5	1.2	6
HC-6285A	White solid	500/60°C	-	0.98	6
HC-6285C	Transparent liquid	20/30°C	-	1.01	6

### 4. Casting Processing Way:

Hardness		60A	65A	70A	75A	80A	85A	90A	95A
POL component	HC-6285A	180	150	125	105	85	65	50	35
ISO ccomponent	HC-6285B	100	100	100	100	100	100	100	100
Chain extender	HC-6285C	5	6.5	8	9	10	11	11.8	12.5
A Processing temp.	°C	60							
B Processing temp.	°C	55							
C Processing temp.	°C	30							
Pot life	min	5	5	5	5	5	4	3	2.5
Mold temp.	°C	100-110							
Demold time	min	80	70	50	50	50	50	50	50
Cure condition	°C/h	80°C/16-24,100°C/12-16							

### Processing way:

Name \ Item	Pre-heat temp. (°C)	Pre-heat time (hours)	Degassing	Storage
HC-6285B	50/80	12/5	YES	Nitrogen
HC-6285A	80	12	YES	Nitrogen
HC-6285C	40/25	6	YES	Nitrogen

Note: 1. Preheating temperature should not be too high, too long, avoid local overheating, shake well before use;

2. The gel time is based on the manual mixing and stirring of 200g raw materials. The mixing speed of the machine is about 1 minute. The curing of the hot mold is also rapid. Please confirm the speed.



## 5. Physical indicators

Item	Testing standard	Unit	60A	65A	70A	75A	80A	85A	90A	95A
Hardness(25°C)	GB/T531.1-2008	Shore A	60A	65A	70A	75A	80A	85A	90A	95A
100% Modulus	GB/T 528-2009	MPa	1.8	2.3	2.8	3.3	4.5	5.8	7.4	11.3
300% Modulus	GB/T 528-2009	MPa	3.9	5.1	6.8	5.3	10.8	14.9	16.3	22.6
Strength at break	GB/T 528-2009	MPa	19	23	26	28	29	34	37	42
Elongation at break	GB/T 528-2009	%	500	475	415	415	415	405	445	425
Tear strength	GB/T 529-2008	KN/m	40	46	50	58	65	75	93	110
Resilience	GB/T 1681-2009	%	70	70	67	63	62	60	55	50
DIN Abration	GB/T 9867-2008	mm <sup>3</sup>	50	50	50	49	46	48	52	55
Relative density	GB/T 533-2008	g/cm <sup>3</sup>	1.06	1.06	1.06	1.07	1.07	1.1	1.11	1.13

## 6. Notes:

- 1) Prepolymer, chain extender, and polyol will crystallize at low temperature. Please warm at 70 °C until completely melted. Shake well before use.
- 2) Increasing the curing speed and demolding time can be achieved by adding a catalyst, and the catalyst should be added to the polyol component.
- 3) Prepolymer should be stored at low temperature and dry place, avoid moisture and water when using.
- 4) Use as soon as possible after opening the drum. Fill in Nitrogen to seal if it can not be used up.
- 5) Shelf life is 6 months for unopened drum.
- 6) If color paste or other additives are needed, they can be added in component A, but be sure, moisture content of the additives should be under 0.1%.