



Prepolymer HC-5295ABC

1.Character: MDI polyester prepolymer based, with good abrasion resistance, high tensile tear strength and resilience ability.

2.Applications: It is mainly used for the production of polyurethane elastomer products with wear-resistant, tear resistance and rebound requirements, such as rubber roller, bearing wheel, cutting board, scraper, paper delivery wheel, etc.

3.Typical Properties:

Name \ Item	Appearance (25°C)	Viscosity under processing	NCO (%)	specific gravity (g/cm ³)	Operating temp.
HC-5295B	Viscous transparent liquid	600/60°C	16.5±0.5	1.23	45-55
HC-5295A	White solid	1200/60°C	-	1.18	50-60
HC-5295C	Transparent liquid	20/30°C	-	1.01	20-30

4. Casting Processing Way:

Hardness		60A	65A	70A	75A	80A	85A	90A	95A
POL component	HC-5295A	100	100	100	100	100	100	100	100
ISO ccomponent	HC-5295B	50	57	65	75	80	95	125	200
Chain extender	HC-5295C	3.8	4.8	6.1	7.8	8.8	11.4	16.2	29
A Processing temp.	°C	50-60							
B Processing temp.	°C	45-55							
C Processing temp.	°C	20-30							
Pot life	min	6.5	6	5	5	5	4.5	4	3
Mold temp.	°C	100							
Demold time	min	50	45	30	30	30	30	30	40
Cure condition	°C/h	100°C/12-16							

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	HC-5295ABC							
			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	2.4	2.7	3.8	4.3	5.7	7.9	9.7	12.8
300% Modulus	GB/T 528-2009	MPa	3.6	4.1	5.1	6.2	7.4	11.2	12.3	16.8
Strength at break	GB/T 528-2009	MPa	19	23	27	36	38	42	48	48
Elongation at break	GB/T 528-2009	%	550	575	580	570	560	550	520	520
Tear strength	GB/T 529-2008	KN/m	27	32	53	72	78	87	103	118
Resilience	GB/T 1681-2009	%	58	52	48	48	47	46	42	39
Relative density	GB/T 533-2008	g/cm ³	1.21	1.21	1.21	1.21	1.22	1.22	1.22	1.22

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%.