



## Prepolymer HC-8385A/B

**1.Characters:** Polyether products with medium viscosity and low temperature curing. The product has the advantages of convenient use, long service time, fast demoulding and high strength.

**2.Applications:** It is mainly used for the production of polyurethane elastomer products with general requirements of medium and low temperature curing, such as the wrapping of fitness equipment.

### 3.Product Index:

HC-8385A/B	Unit	Component A	Component B	Testing Standard
Appearance (20°C)	—	Light yellow liquid	Colorless transparent liquid	Internal standards
NCO%	%	-	13.0±0.5	HG/T 2409
Viscosity (25°C)	mPa·s	1200±300	2800±500	GB/T 12009.3
Viscosity (40°C)	mPa·s	400±200	800±200	GB/T 12009.3

This prepolymer should be stored in a low temperature and dry place to avoid moisture, high temperature, etc.

The shelf life of unopened prepolymer is six months.

### 4. Casting Processing Way:

Item	Unit	Component A	Component B
Pre-heating temp.	°C	45±5	45±5
Pre-heating time	Hour	0.5~1	0.5~1
Mix prepolymers temp.	°C	40~50	40~50
Recommended ratio	-	100:100	
Casting mold temp.	°C	70~90	
Oven temp.	°C	70~90	
Pot life	Minute	3~4	
Demold time	Minute	20~40	
Post cure time (90~100°C)	Hour	4~8	

*The above test results are based on a 100g sample molded in a rectangular flat plate.*

*The demolding time depends on the size and shape of the casting parts. If the product is large or the mold shape is complex, the post cure time should be appropriately extended.*



## 5. Physical properties of finished products:

Item	Unit	Testing Standard	HC-8385A/B
Appearance (25°C)	—	—	Light yellow elastomer
Hardness	Shore A	GB/T 531.1-2008	87±3
Density	g/cm <sup>3</sup> (25°C)	GB/T 533-2008	1.13
100%Modulus	MPa	GB/T 528-2009	10
300%Modulus	MPa	GB/T 528-2009	24
Strength at break	MPa	GB/T 528-2009	28
Elongation at break	%	GB/T 528-2009	310
Angle Tear Strength	kN/m	GB/T 529-2008	70
DIN Abrasion	mm <sup>3</sup>	GB/T 9867-2008	115
Resilience (Impact rebound)	%	GB/T 1681-2009	26

## 6. Processing way:

- (1) Weigh quantitative components A and B into two containers, vacuum until there are no large bubbles on the surface, and reserve;
- (2) The temperature of A and B shall be controlled at about 40~50 °C, and the mixing ratio shall be A: B=100:100. Evenly stir and vacuum. After mixing, it can be used for about 3~4 minutes;
- (3) Inject the mixed materials into the preheated mold coated with polyurethane special release agent, and the mold temperature shall be controlled at 70~90 °C. Pay attention to avoid too many bubbles when pouring. After the bubbles float up, burn them with flames. The controlled gel point that needs to be molded with a vulcanizer is pressurized before the surface is not sticky but not completely hardened;
- (4) The product demoulding time is 20~40 minutes. Generally speaking, the larger the product is, the longer the demoulding time is. Please extend the demoulding time appropriately. If it is cured at room temperature, it has preliminary strength within 2 hours and demoulding strength within 3~4 hours;
- (5) After demoulding, the products shall be further post vulcanized at a temperature of 90~100 °C for 4~8 hours. They can be used after being placed at room temperature for another week. The initial strength can be reached after curing at room temperature for 18 to 24 hours. If the performance fully meets the requirements, please leave it for more than 3 days.



## 7. Notes:

1. Store the prepolymer to avoid moisture, high temperature and light protection; please use it up as soon as possible after opening the prepolymer, and seal it immediately after use; if possible, please fill it with N<sub>2</sub> and seal it;
2. The raw materials have a slight pungent smell, the environment should be as ventilated as possible, and the operation should be well protected to avoid scattering or pollution and inhalation;
3. If color paste or other materials are to be added, they can be added to component A, and the water content of the additive shall be kept below 0.1%, and the compatibility of the additive shall be considered.

*All technical data and using suggestions provided by our company, and typical values based on our company's experimental conditions and working environment, non- product guidelines. Since we don't well know the users' processing control and the application of finished parts, so it is responsibility and more necessary for users to test the processing way and properties of finished parts, so that to verify whether it is suitable for the user's own process and purpose.*