



Prepolymer HC-8780D-A/B

1.Character: High hardness, no yellowing products. The product has the advantages of convenient use, fast curing and high hardness.

2.Applications: It is mainly used for polyurethane elastomer products with high hardness requirements.

3.Product Index:

HC-8780D-A/B	Unit	Component A	Component B	Testing Standard
Appearance (20°C)	—	Colorless transparent liquid	Colorless transparent liquid	Internal standards
NCO%	%	-	33.8±1.0	HG/T 2409
Viscosity (25°C)	mPa·s	500±200	30±20	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	25±5	25±5
Pre-heating time	Hour	0.5~1	0.5~1
Mix prepolymers temp.	°C	20~30	20~30
Recommended ratio	-	100:100	
Casting mold temp.	°C	25~30	
Oven temp.	°C	25~30	
Pot life	Minute	25~35*	
Demold time	Hour	2~3	
Post cure time (20~30°C)	Day	5~7	

***:Operation time can be adjusted according to customer demand.**

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-8780D-A/B
Appearance (25°C)	—	—	Colorless transparent elastomer
Hardness	Shore D	GB/T 531.1-2008	80±5
Density	g/cm ³ (25°C)	GB/T 533-2008	1.09
100%Modulus	MPa	GB/T 528-2009	-
300%Modulus	MPa	GB/T 528-2009	-
Strength at break	MPa	GB/T 528-2009	48
Elongation at break	%	GB/T 528-2009	6
Angle Tear Strength	kN/m	GB/T 529-2008	85
DIN Abrasion	mm ³	GB/T 9867-2008	-
Resilience (Impact rebound)	%	GB/T 1681-2009	25

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 20~30 °C, and the mixing ratio shall be A: B=100:100. Evenly stir and vacuum. After mixing, it can be used for about 25~35 minutes;
- (3) Inject the mixed materials into the preheated mold coated with polyurethane special release agent, and the mold temperature shall be controlled at 25~30 °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 2~3 hours. Generally speaking, the larger the product is, the longer the demoulding time is. Please extend the demoulding time appropriately.
- (5) After demoulding, the products shall be used after being placed at room temperature for another week.



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 N₂ 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.