

## Silicone Insulating Glass Sealant

CNC-997

### Description

CNC-997 Silicone insulating glass sealant is a two-parts, neutral curing silicone sealant specifically developed for the manufacture of high performance insulated glass with good features as follows:

- 1-Insulating glass manufactured by CNC-997 conforms to GB/T11944
  - 2-Excellent adhesion to all kinds of glass
  - 3-Neutral cured, no corrosion, non poisonous
  - 4-Excellent structural strength with temperature durable performance at 50°C~+150°C
  - 5-Excellent weatherproof and UV, high temperature and humidity stability.
- No limitation for batch time match



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### Where to Use

It is formulated for making the secondary seal in a dual sealed insulating glass unit.

The high performance features incorporated into this product make it especially suitable for the following applications:

- 1-Insulated glass unit for commercial buildings
- 2-Insulated glass unit incorporating specialty glass types, or with free edges (solar architecture).
- 3-Insulated glass unit where high heat or humidity may be encountered.

CNC-997 structural sealant has excellent unprimed adhesion to most coated or not coated glass. It's compatible to neutral serial CNCGLASS products.

### Typical properties (for reference)

Item	Base	Curing Agent	Mixed Base to Curing Agent by Volume	Test method
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Colors	White	Black	Black, no flow paste	
Specific gravity	1.38	1.02	1.33	
Shelf life, month	12	12		
Mixed at 12:1 Base to Curing Agent by weight (or 9:1 by volume)				
Working Time((humidity 50±5%,temperature 23±2℃)		minutes	20-40	
Tack free time (humidity 50±5%,temperature 23±2℃)		minutes	80-100	
Corrosive			no	
As Cured 7 Days at (humidity 50±5%,temperature 23±2℃)				
Ultimate tensile strength		MPa	0.85	GB/T113477
Ultimate elongation		%	120	GB/T113477
Hardness (Shore A)			42	GB/T1531
Service temperature range		℃	50℃~+150℃ (-58~+302F)	

## How to Use

The base and curing agents should be mixed by airless mixing system for better physical performance. CNC-997 is fit for general two-part silicone sealant dispenser. It will have no good effects if using manual mixing or using hand for air entering into sealant and later changing the performance of sealant.

Lot matching of base and curing agent is not required for CNC-997.

CNC-997 should be stirred before use to prevent possible settling in shipment.

Because of its reactivity with atmospheric moisture, curing agent should not be exposed to air for prolonged period. The 12:1 base to curing agent mixing ratio by weight could be adjusted by user from 10:1~14:1(mixing ratio by volume from 7.5~10.5:1) for suitable curing time. No any significant changes will occur over this range. The increase or decrease of air moisture will affect the snap time.

To obtain optimum adhesion, joints should be tooled immediately after sealant application to ensure complete substrate contact. During shutdown, it's recommended that the dispensing and mixing lines be purged with un-catalyzed base. This minimizes sealant buildup.

Questions about CNC-997 could be answered by calling CNCGLASS. Our laboratory and technical staffs are available for assistance.

## Surface clean

Cleaning all grease, dirty, water, clunky sealant from surface, accessories and protective coatings and any pollutant left inside joints and sunken parts.

Surface of Metal, glass and plastic will be cleaned by "two-cloth" cleaning method. No matter which way, use a piece of oil-free and lint-free cloth to wipe and another piece to get rid of remnant solvent. Washing powder or soap water is not fit.

### **Priming**

It's commonly not necessary for priming on using CNCGLASS silicone sealant. If recommending primer after adhesion tests, pour CNCGLASS primer to a clean, dry, lint-free cloth and gently wipe surface till a thin film formed. Later application.

### **Masking**

Masking tape should be used to keep excess sealant from contacting adjacent areas where it is not intended, to ensure an aesthetically pleasing job. Tool the sealant with light pressure before a skin begins to form (typically 10 to 20 minutes). Remove the masking tape before the sealant skins over.

### **Clean dispensing equipment**

During shutdown, it's recommended that the dispensing and mixing lines be purged with un-catalyzed base or solvent. The cured sealant inside the dispenser should be cleaned with solvent.

### **Maintenance**

No need to maintenance. Please change broken part or CNC-997 if sealant failed. CNC-997 could be adhered to the cured CNC-997 after suitable surface clean.

### **Construction Project Technical Service**

It's needed to take the design, choose materials, operation into consideration for the structural joint sealing. The technical communication between suppliers and applicants are necessary for the present situation: varied sealant types, daily changing materials and the compatibilities between surface treatment and materials. CNCGLASS gives construction project technical services as follows:

#### **1-Adhesion Testing**

CNCGLASS Silicone will evaluate tests about the adhesion of our products to job site or representative job site materials in standard laboratory. Results of the adhesion testing, product recommendations and surface preparation will be forwarded in writing.

#### **2-Compatibility Testing**

Incompatibility of glazing materials can lead to sealant discoloration and/or loss of adhesion. To help protect against these problems and to ensure compatibility, CNCGLASS will also test and provide information on the compatibility of accessory materials (gaskets, spacers, etc.) and other CNCGLASS Silicone sealants.

#### **3-Stain Testing**

Because of the staining problems that may occur with porous substrates, CNCGLASS is willing to run laboratory tests and provide information to you on the possibility of staining occurring with the construction materials being used.

**Handling Precautions**

Product safety information is not included in this document. Before handling, read product and material safety data sheets and container labels for safety. Product and material safety data sheet is available from CNCGLASS.

**Storage and Shelf life**

It is stored on airtight container under 30°C and 12 months of shelf life from the date of production..

**Packing**

CNC-997 base and curing agents are available in separate packaging or match packaging (12:1 by weight). The base will be used for purge in dispenser shutdown. So base is available in 245 Kg ferrous drum. Curing agent is available in 19 Kg plastic pail.

**Use Limitations**

CNC-997 could not be used for structural curtain wall glazing.

Adhesion and compatibility tests among materials;

CNC-997 should not contact with any acetic sealant.

Not recommend for drug use before tests.

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