

# High Performance Weather Sealant

## SEALANT-456

SEALANT-456 is a one-part and neutral-curing silicone sealant.

Once cured, this sealant becomes a medium modulus and flexible silicone rubber suitable for conventional glazing and weatherseal applications (non-structural glazing).

This sealant contributes to the superior design and high reliability of buildings.

### 1 Features

- One-part and neutral-cure RTV\* silicone sealant
- Superior weatherability performance when exposed to a wide range of temperatures, moisture, ozone, and ultraviolet rays
- Excellent storage stability within a wide range of temperatures
- Excellent unprimed adhesion to most common building materials including Fluoro-polymer coating and easy-to-use in a wide range of temperatures
- $\pm 50\%$  Joint Movement Capability of the original joint width

\* RTV stands for "room temperature vulcanizing" which means that this material can be cured at room temperature.

### 2 Applications

Conventional glazing and weatherseal applications

### 4 Colors

Gray

### 3 Specifications

- ASTM C920\*1 Type S, Grade NS, Class 50, Use NT, G, A, M
- KS F 4910\*2 F-25LM

\*1 Standard Specification for Elastomeric Joint Sealants

\*2 Sealants for sealing and glazing in buildings

### 5 Packaging

300 mL cartridges (25 pcs/carton box)

### 6 General properties

Parameter	Product name	SEALANT-456
Consistency		Paste
Slump	mm	0
Skin-Over Time at 23°C/50%RH	min	25
Density at 25°C	g/cm <sup>3</sup>	1.3
VOC Content*	g/L	52
After cured - After 7 days at 23°C/50%RH		Reference Test
Hardness Shore A	ASTM D2240	22
Tensile strength	ASTM D412	1.5
Elongation at break		460
After cured - After 21 days at 23°C/50%RH		Reference Test
50% Tensile stress	ASTM C1135	0.3
Maximum tensile stress		1.0
Joint movement capability	ASTM C719	$\pm 50$

\* Based on SCAQMD, Reported Volatile Organic Compound (VOC) content was expressed as grams of volatile organic compounds per litre of submitted sample.

(Not specified values)

## 7 Instructions for use & Handling precautions

Please read the latest Shin-Etsu published Functional Sealants Technical Manual. The manual can be obtained from the Shin-Etsu website.

<http://www.shinetsusilicone-global.com/>

## 8 Important

1) Please insure that application procedures and quality control are in strict compliance with the latest Shin-Etsu published Functional Sealants Technical Manual. Before applying sealant, applicators are required to obtain the manual from the Shin-Etsu website.

<http://www.shinetsusilicone-global.com/>

- 2) All quality control test results must be logged and archived.
- 3) The Shin-Etsu Sales Department is available for specific advise.

## 9 Limitations

- 1) SEALANT-456 must not be used and is not approved for structural glazing.
- 2) SEALANT-456 must not be used in food, medical or pharmaceutical applications.
- 3) The contents of this catalog are believed to be correct, but project conditions regarding actual application and use of Shin-Etsu sealant are beyond Shin-Etsu's control. Therefore it is the users responsibility to confirm the product meets the requirements of the application.
- 4) Shin-Etsu warrants only the sealant will confirm to Shin-Etsu's product specifications at the time of shipment, and makes no further warranties in respect of the sealant. Warranty remedy for such failure is limited to refund of purchase price or replacement of product. If applicators need extended warranty

for performance of sealants, please contact the Shin-Etsu Sales Department in advance of the project inception.

## 10 Storage conditions

Temperature: at or below 30°C

\* Seal container tightly and store in a cool, dark place (out of direct sunlight) with good ventilation. Keep away from heat and flame.

## 11 Shelf life

12 months after production date under the above storage conditions in the original unopened container

## 12 Safety and hygiene

- 1) Uncured SEALANT-456 may cause skin irritation. When handling the products, take care to avoid contact with the skin and mucous membranes by wearing protective glasses and protective gloves. In case of skin contact, immediately wipe off with dry cloth and then flush thoroughly with running water. When using, be careful not to rub eyes with hands. In case of accidental eye contact, flush immediately with plenty of clean water for at least 15 minutes and then seek medical attention. Contact lens wearers must take special care. If the products get into the eye, the contact lens may become stuck to the eye.
- 2) Be sure to provide adequate ventilation when using the product. During curing, a small amount of Methyl Ethyl Ketone Oxime (MEKO) gas is gradually generated. If you become uncomfortable with inhaling vapors, move to an area with fresh air immediately.
- 3) Keep out of reach of children.
- 4) Please read the Safety Data Sheets (SDS) before use. SDS can be obtained from our Sales Department.

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