

Technical Data Sheet

VersatSIL N68 Solar Panel Silicone Sealant

One component medium modulus neutral cure sealant

Key Features & Benefits

- Highest quality, tailor made for sealing and joining of solar panels.
- medium modulus, high recovery, and excellent strength performances
- Easy and quick extrusion rate in all weather conditions.

Curing Technology

- Neutral curing silicone sealant
- 1K (one part) moisture cure, no need for mixing
- No shrinkage

Common Applications

- Sealing of joints and gaps for solar panels
- Withstand harsh environment and temperature settings

Typical characteristics

Note: Values presented hereby are representation of typical properties of the sealant, actual properties may differ due to the conditions of working zone.

Test	Characteristics	UNIT	RESULT
	<i>As supplied</i>	-	
	<i>Colors</i>	-	Colors upon request
	<i>Application Temperature</i>	°C	-5 to 40
	<i>Skin Over time (TFT) 50% RH</i>	<i>Minutes</i>	Approx. 20mins
	<i>Curing Time, 3/8" (9 mm) Depth, 50% RH at 25°C (77°F)</i>	<i>Days</i>	Approx. 2-3days
ASTM C639-15 Rheological properties	<i>Vertical (50 °C)</i>	<i>mm</i>	0
	<i>Vertical (4.4 °C)</i>	<i>mm</i>	0
	<i>Horizontal (50 °C)</i>	-	No Deformation
	<i>Horizontal (4.4 °C)</i>	-	No Deformation
CNS 8904 Tensile strength @ 23 °C	<i>Glass</i>	<i>N/mm²</i>	0.41
	<i>Aluminum</i>		0.42
ASTM C1135-19 Tensile Adhesion Strength	<i>Glass</i>	<i>Elongation %</i>	185%
	<i>Aluminum</i>		188%
AFTER FULLY CURED			
CNS 3555	<i>Durometer Hardness, Shore A</i>	-	35
CNS 3553	<i>Ultimate Tensile Strength</i>	<i>Kgf/cm²</i>	28.5

	<i>(Type IA , V=500 mm/min)</i>		
CNS 3559	<i>Tear Strength (Type C , V=500 mm/min)</i>	Kgf/cm	10.1
ASTM C1183-13	<i>Extrusion Rate</i>	mL/min	98.9
ASTM C793-05	<i>After weathering (QUV/250h)</i>	-	No.0
Accelerated Weathering	<i>Frozen cracking after weathering (Remark.1)</i>	-	No.0

Remarks:

1. After weathering test, specimens conditioned at -26 °C for 24 hours then bending the specimen over the mandrel (ø12.7mm) around 180° within 1 second.
2. Test Level: 20 HM (60%).
3. Tensile test conditioning: Type A.
4. Tensile adhesion strength conditioning: standard state 14 days and 30 °C ; 14 days.

Description

VersatSIL N68 weatherproofing silicone sealant by Jinyang Chemicals is specifically formulated to provide excellent adhesion on most no porous substrate. With its medium modulus, it remains elastic in all temperature and places after fully cured. Specially formulated for use in solar panel applications, resistant to harsh environment and temperature. With 1K moisture cure technology, no mixing is required; therefore, high efficiency could be achieved. The provide provides high quality at competitive prices allowing it to be the most economical in the current market.

The standard color for this product is grey, other color options could be customized to achieve customer requirements.

How to use

Preparations on applied surface

Please ensure that the surface to be applied are properly cleaned to achieve best adhesion results. Removal of dust, grease, and other possible contaminants must be removed. For grease removal, use acetone, and solvents alike to make sure that the surface is cleaned properly.

Use of primers

To ensure optimum adhesion properties, primers can be used accordingly. VersatSIL N68 itself adheres to most substrates but shall be tested before applying.

Applications steps

The sealant comes in 300ml plastic cartridge and is ready to use by cutting the tip of and screwing nozzles on top. The nozzle can be cut to different angles for ease of application.

**Packaging
Storage life**

VersatSIL N68 comes in at 300ml plastic cartridges. One box contains 25 pieces. The sealant should be stored in cool, dry places without direct sunlight. Below 25 degree Celsius, the sealant has an usable life of 12months (starting from the date of manufacturing) in its original plastic container.