

SS602 STONE SILICONE SEALANT

DESCRIPTION

SS602 Stone Silicone Sealant is a one-component neutral curing silicone sealant with excellent adhesion to all type marble and granite, purposely designed for weather sealing in all type stone glazing and stone curtain wall joints. SS602 without inert low-molecular-weight components for the special formulation cannot pollute the porous materials, which overcomes the disadvantages of common sealant and adhesive.

SS602 is extruded from tube with sealant gun when used, and it absorbs the moisture in the air, and then cures to elastomer capable of maintaining a seal effectively.

CHARACTERISTICS

- SS602 belongs to RTV-1. Good extrusion and thixotropy between 4°C~+40°C. Easy to use;
- Neutral curing, non-corrosive to metal, coated glass, marble, granite etc.
- No inert low-molecular-weight components in the formulation like plasticizer and Pollution-free to porous materials like marble, granite. Excellent sealing and decoration. Common silicone sealant, especially silicone weather-proofing sealant, easy to bring on pollution, is unsuitable for stone curtain wall.
- Excellent adhesion to all type marble and granite;
- Release low-molecular-weight alcohol and no unpleasant odor during cure.
- Excellent resistance to weather, UV, ozone, water;
- Remains flexible over a temperature range of -58° F(-50° C) to 302° F(150° C);
- Good compatibility with other neutral silicone sealants.

APPLICATIONS

- Weather sealing for stone curtain wall joints and precast slab joints;
- Adhesion and sealing in expansion joint for ceramic engineering;
- Joint sealing between stone and other materials like glass, metal etc;
- many other uses.

TYPICAL PROPERTIES

Property	Result	Test method
As Supplied		
Color	Black, gray, white	
Tack free time(23°C/73°F, 50% RH)	55minutes	ASTM C679
Full Adhesion	14-21 days	
Flow, Sag or Slump	0.1 inches max	ASTM D2202
Working Time	10-15 minutes	
As Cured		
Durometer Hardness, Shore A	45	ASTM D2240
Joint Movement Capability	± 20%	ASTM C719
Pollution	Pass	ASTM C1248

Specifications: Typical property data values should not be used as specifications. Assistance with specifications are available by contacting Guangzhou Baiyun Chemical Industry CO., LTD.

APPLICABLE STANDARDS

SS602 Stone Silicone Sealant meets or exceeds the requirements of the following specifications for one-part sealants.

ASTM Specifications:

- C920; Type S, Grade NS, Class 20, Use NT, A, G, O

COLORS

SS602 Stone Silicone Sealant is available in black, gray, white or other colors on request.

PACKAGING

SS602 Stone Silicone Sealant is available in 10.1 fl. oz. (300 ml) plastic caulking cartridges and 16.9 fl. oz. (500 ml) foil sausage packs.

LIMITATIONS

SS602 Stone Silicone Sealant should not be used, applied or is not recommended:

- In structural glazing applications or where the sealant is intended as an adhesive.
- In areas where abrasion and physical abuse are encountered.
- In totally confined spaces as the sealant requires atmospheric moisture for cure.
- On frost-laden or damp surfaces
- To building materials that bleed oils, plasticizers or solvents – materials such as impregnated wood, oil-based caulks, green or partially vulcanized rubber gaskets or tapes.
- In below-grade applications.
- On concrete and cement substrates.
- On substrates made of polypropylene, polyethylene, polycarbonate and polytetrafluoroethylene.
- Where movement capability greater than $\pm 20\%$ is required.
- Where painting of the sealant is required, as the paint film may crack and peel
- For structural adhesion on bare metals or surfaces subject to corrosion (i.e., mill aluminum, bare steel, etc.)
- To surfaces in contact with food
- For use underwater or in other applications where the product will be in continuous contact with water.

TECHNICAL SERVICE

- **Offer the integral technical data of the products.**
- **Adhesion Test:**

The products of BaiYun silicone sealant have excellent adhesion to most common building material, as glass, anodized aluminum, ceramic tile, granite, steel and plastics.

But we cannot ensure our sealants are suitable to all materials, as a result of the unceasing appearance of new building materials and the application of new surface treatment technology. In some cases, it is required to have the adhesion test on the substrates. In the laboratory of our factory, we can carry out the adhesion test for clients and give the test report that includes experimental result, recommended products, cleaning methods of the material surface etc.

- **Compatibility Test:**

If the accessory like baker, double-sided glue strip can not be compatible with silicone rubber, it may cause silicone rubber to turn colors, even lose adhesion. To avoid these problems, we provide services of compatibility test for clients. Clients can send the accessory to us by mail (or other ways), then we will carry out the compatibility test and give the test report.

- **Staining Test:**

We provide services of pollution test for clients. Clients can send the substrates to us by mail (or other ways), then we will carry out the staining test and give the test report.

INSTALLATION

Surface Preparation

Sealants may not adhere or maintain long-term adhesion to substrates if the surface is not prepared and cleaned properly before sealant application. Using proper materials and following prescribed surface preparation and cleaning procedures is vital for sealant adhesion. Guangzhou Baiyun Chemical Industry CO., LTD. can provide quality control information and suggestions to user upon request.

Materials(Glass, Metals, Plastics, Ceramics, etc.)

- Clean by using a two-rag wipe technique → wet one rag with solvent and wipe the surface with it, then use the second rag to wipe the wet solvent from the surface BEFORE it evaporates (allowing the solvent to dry on the surface without immediately wiping with a second cloth can negate the cleaning procedure because the contaminants may simply be re-deposited as the solvent dries). In all cases where used, solvents should be wiped dry with a clean, white cloth or other lint-free wiping materials. Change the cleaning rags frequently, as they become dirty. It is easier to see the dirt accumulating on the rag if white rags are used. Do not dip used cleaning rags into the cleaning solvent as this can contaminate the solvent (cleaning with contaminated solvent can result in sealant adhesion issues). Always use clean solvent-resistant containers for solvent use and storage.
- When cleaning deep, narrow structural glazing cavities, wrap the cleaning cloth around a clean, narrow-blade putty knife. This permits force to be applied to the cleaned surface.
- Isopropyl Alcohol (IPA) is a commonly-used solvent and has proven useful for most non-porous substrates encountered in architectural construction applications. Xylene and Toluene have also been found useful on many substrates. When handling solvents, refer to manufacturer's MSDS for information on handling,

safety and personal protective equipment.

- Architectural coatings, paints and plastics should be cleaned with a solvent approved by the manufacturer of the product or which does not harm or alter the finish.
- Cleaning of surfaces should be done within 1 to 2 hours of when the sealant is to be applied.
- Difficult or nearly impossible to see on a joint substrate, frost is likely to develop on substrates when temperatures drop near the freezing point. Since frost and moisture will interfere with proper sealant adhesion, it is important to confirm that substrates are dry prior to application of the sealant.

Exterior Insulation and Finish Systems (EIFS)

- The use of an appropriate silicone primer is required on all EIFS substrates. Consult BAIYUN Technical Services for sealant primer-substrate recommendations.
- Confirm with the EIFS supplier which finish the sealant should be applied to (*i.e.*, base coat or base coat with EIFS primer).
- All EIFS surfaces must be clean, dry and sound and in an acceptable condition to receive sealant. Confirm with the EIFS supplier or project architect or consultant, what joint conditions are considered acceptable for sealant installation to proceed. If unacceptable conditions are found, cease installation of sealant until corrections are made.
- To clean EIFS, lightly abrade the joint surfaces using a synthetic brush or pad and then remove dust and other remaining loose particles with a soft bristle brush or using an oil-free air blow.
- Cleaning of surfaces should be done within 1 to 2 hours of when the sealant is to be applied.
- Since EIFS materials can absorb and retain moisture, it is important to confirm that the EIFS materials are dry prior to application of the sealant.

Primers

SS602 Stone Silicone Sealant will bond to many clean surfaces without the aid of a primer. For difficult-to-bond substrates, the use of a primer or special surface preparation should be evaluated. An evaluation should be made for each specific application/substrate to determine quality of bond. When properly used, primers help assure strong and consistent sealant adhesion to surfaces that may be difficult to bond. Most primers are a blend of organic and inorganic chemicals, resins and solvents. Obtaining the proper materials, as well as following the prescribed procedures, is vital to ensure the successful use of primers. PRIMER APPLICATION IS NOT A SUBSTITUTE FOR SURFACE PREPARATION. Consult Guangzhou Baiyun Chemical Industry CO., LTD. primer datasheet(s) for specifics and recommendations for use.

CAUTION

Primers may contain solvents. When handling solvents, refer to manufacturer's MSDS for information on handling, safety and personal protective equipment.

Masking

The use of masking tape is recommended where appropriate to ensure a neat job and to protect adjoining surfaces from over application of sealant. Masking tape can prevent contact of sealant with adjoining surfaces that otherwise would be permanently marred or damaged by such contact or by cleaning methods required to remove sealant systems. When tooling, use care not to spread the sealant over the face of the substrates adjacent to the joint or masking as the silicone can be extremely difficult to remove on rough or porous substrates. Do not allow masking tape to touch clean surfaces to which the silicone sealant is to adhere (adhesive on masking tape can interfere with adhesion of silicone). Masking tape should be removed immediately after tooling the sealant and before the sealant begins to skin over (tooling time).

- To simplify clean up of excess sealant, use easy to release, pressure sensitive tape to mask adjacent surfaces before applying the structural silicone sealant.
- Start from the top down and overlap the runs. Tool in direction of over-lap so that masking is not disturbed during tooling.
- Remove masking immediately after application of silicone or as soon as possible or practical.
- Drop cloths can be used to cover any surfaces likely to collect excess sealant removed during tooling operations.

Sealant Application

- Apply sealant in a continuous operation, horizontally in one direction and vertically from the bottom to the top of the joint opening, applying a positive pressure adequate to properly fill and seal the joint width.
- Tool or strike the sealant with a concave tool applying light pressure to spread the material against the back-up material and the joint surfaces to ensure a void-free application.
- In glazing applications, tool the sealant at the sill so that precipitation and cleaning solutions will not pool.
- Excess sealant should be cleaned from glass, metal and plastic surfaces while still uncured. On porous surfaces the excess sealant should be allowed to progress through the initial cure or set-up. It should then be removed by abrasion or other mechanical means.
- Due to the smooth consistency of SS602 Stone Silicone Sealant, tooling agents such as water, soap, or detergent solutions are not necessary or recommended. Dry tooling is recommended.
- Sealant application is not recommended when the temperature is below 40° F (4 ° C) or if frost or moisture is present on the surfaces to be sealed.
- Application of SS602 Stone Silicone Sealant is not recommended to surfaces above 104° F (40° C).
- The cure rate of this product is dependent upon temperature and the availability of atmospheric moisture. Under Standard Conditions (relative humidity of 50 ±

5% at an air temperature of $73.4 \pm 2^{\circ}$ F [$23 \text{ of } \pm 1^{\circ}$ C]) this material can attain a cured thickness of 2-3 mm per 24 hours (assuming ample access to atmospheric moisture). As temperature decreases, the cure rate slows down (and vice versa). Low moisture environments will also reduce the cure rate. Near-confined spaces which limit the overall access to atmospheric moisture will cure only from that surface which has access to the atmosphere. Colder temperatures can significantly increase cure times and can open the possibility of sealant irregularities if joint movement occurs while sealant is not fully cured. The following reference provides additional information on Movement-During-Cure of sealant joints: ASTM C1193 – Standard Guide for Use of Joint Sealants; section 12.5.

HANDLING AND SAFETY

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND MATERIAL SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE MATERIAL SAFETY DATA SHEET IS AVAILABLE FROM BAIYUN SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING BAIYUN CUSTOMER SERVICE.

USABLE LIFE AND STORAGE

When stored at or below 27°C (80°F) in the original unopened containers, this product has a usable life of 9 months from the date of manufacture.

PRODUCT SAFETY

Customers considering the use of any of Guangzhou Baiyun Chemical Industry CO., LTD. products should consult the latest Material Safety Data Sheets and labels for product safety information. Customers must evaluate Guangzhou Baiyun Chemical Industry CO., LTD. products and make their own determination as to fitness of use in their particular applications. For Material Safety Data Sheets contact the Guangzhou Baiyun Chemical Industry CO., LTD. sales office nearest you. Customers must ensure that all applicable federal, state, and local requirements have been met before handling any of the products mentioned in the text.

LIMITED WARRANTY INFORMATION – PLEASE READ CAREFULLY

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that Guangzhou Baiyun Chemical Industry CO., LTD.'s products are safe, effective, and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent.

Guangzhou Baiyun Chemical Industry CO., LTD.'s sole warranty is that the product will meet the Guangzhou Baiyun Chemical Industry CO., LTD. sales specifications in effect at the time of shipment. Your exclusive remedy for breach of such warranty is

limited to refund of purchase price or replacement of any product shown to be other than as warranted.

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