SS80, SS44UV, SS4044P, SS4004P & SS4179

Construction Sealant Primers

Product Description

GE construction primers help promote strong and consistent adhesion of GE branded construction sealants to surfaces that may be difficult to bond to. These primers are supplied ready-to-use (*i.e.,* no mixing required) and easily applied to clean, dry, frost-free, sound surfaces just prior to sealant installation.

Key Features and Typical Benefits

- **SS4044P Primer**—Candidate for adhesion promotion on: anodized & painted aluminum, mill & conversion-coated aluminum, metals & galvanized metals, copper, brass, painted & stainless steel, brick, concrete, stone, terra cotta, unglazed ceramics, plastics and wood. May prove useful on other items as well. May be used interchangeably with SS4004P & SS44UV.
- **SS4004P Primer**—Identical formulation to: SS4044P except tinted pink for confirmation of coverage on light-colored substrates. SS4044P & SS4004P may be used interchangeably. May be used interchangeably with SS4004P & SS44UV.
- **SS44UV Primer**—Identical formulation to SS4044P except optically brightens under blacklight (UV-A) for confirmation of coverage. May be used interchangeably with SS4044P and SS4004P. May be used interchangeably with SS4044P & SS4004P.
- **SS4179 Primer**—Candidate for adhesion promotion on: various factory applied paints including; fluoropolymer, acrylics, alkyds, powder coats, etc., most plastics, conversion-coated & painted aluminum, copper and brass. SS4179 is also effective on some porous substrates. SS4179 primer may be suitable for some food contact applications where FDA regulations apply. Determination of specific requirements is recommended prior to use.
- **SS80 Primer**—Candidate for adhesion promotion on all substrates similar to SS4044P but also polyolefin materials such as polypropylene, polyethylene and chlorinated polyethylene, which are normally difficult-to-bond substrates.
- **Short Dry Time**—Most typical applications require only a few minutes of drying time prior to application of the sealant (drying time is variable and dependent upon local conditions at point of use). See typical properties table for drying times.
- **Product Versatility**—These silicone primer solutions are compatible with all GE branded construction silicone products lines. Consult Technical Services for specific sealant-primer-substrate recommendations or testing.

Potential Applications

- GE construction primers enhance adhesion of GE construction products to difficult-to-bond surfaces and substrates.

Packaging

SS4044P, SS4004P, SS44UV & SS4179 are available in 16.0 fl. oz. (473 ml) pint-sized containers, 6 bottles per carton. They are also available in 1 gallon (3.79 L) pail containers. SS80 is available in 300 ml (10.1 fl. oz.) containers, 10 containers per carton.

Typical Physical Properties

Typical property values of these primers as supplied as set forth in the table below. Typical product data values should not be used as specifications.

Typical Properties – Supplied(1)

Property	SS80	SS4004P	SS4044P	SS4179	SS44UV
Color	Clear/ Amber	Pink	Clear/ Amber	Clear/ Colorless	Clear/ Amber
Dry Time;(2) colder environment, minutes	5-20	5-15	5-15	5-10	5-15
Dry Time;(2) warmer environment, minutes	3-5	3-5	3-5	3-5	3-5
Solids Content, %	8	15	15	6	15
Specific Gravity	0.88	0.80	0.80	0.91	0.80
VOC,(3) g/L	809	636	624	859	624

(1) Typical properties are average data and are not to be used as or to develop specifications.
(2) Drying times shown are typical, however, these times may be longer or shorter depending upon local conditions at point of use. It is suggested to confirm that the primer is dry to the touch prior to application of the sealant.
(3) Excluding water & exempts

Installation

CAUTION: Primers contain solvents. When handling primer, refer to product specific SDS for information on handling, safety and personal protective equipment.

- *IMPORTANT:* In all cases, the acceptability of each sealant-primer-substrate combination must be confirmed with a lab or site adhesion test prior to proceeding with project installation.

  MPM can provide lab and field adhesion testing information and suggestions to user upon request.

Surface Preparation

- See specific sealant product datasheets for surface preparation guidelines for use in conjunction with these primers.
- NOTE: THE USE OF A PRIMER IS NOT TO BE MISTAKEN AS A SUBSTITUTE FOR SURFACE PREPARATION.

Primer Application

- The typical application method for these primers is by brushing or wiping. Spraying or dipping of parts is also possible although these two methods sometimes produce erratic results and non-uniform applications (which may not produce uniform adhesion). A single thin uniform application of primer usually provides the strongest bond. Care should be taken so as not to slather or excessively apply the primer onto substrates such that drips or build-ups occur as this can produce poor or inconsistent adhesion.
- For solid smooth substrates (plastics, metals, etc.) a wipe application is suggested. When wiping, apply a thin film of primer to the surface with a clean lint-free cloth or other appropriate wiping material. The application should be in one continuous uniform stroke. Change to a clean rag frequently as contaminants build up or rag becomes dirty.
- For porous and irregular materials (concrete, rough brick, non-smooth stone, etc.) a brush application is suggested. When brushing, it is suggested to use only natural bristle brushes as these are known to provide sufficient results. Brushes with synthetic bristles should be avoided. Synthetic bristles could become dissolved by the primer solvent and possibly affect adhesion.
- On irregular porous surfaces, a second coat of primer may be helpful and a site test using 1 coat vs. 2 coats will show which offers the best performance.
- Confine primer application to areas of joint-sealant bond; do not allow spillage or migration onto adjoining surfaces. See section on masking.
- Under most conditions, a drying time of 5-10 minutes is sufficient prior to application of the silicone adhesive sealant. Under colder temperatures drying time may increase somewhat but is rarely longer than 25 minutes. For all of these silicone primers sufficient humidity must be available for proper drying. Lower humidity can result in longer drying times. Field tests are suggested at each job or application site to find drying time under current conditions. Allow at least the current drying time in minutes between coats if a second coat is desired.
- Primers may be left to dry for up to 24 hours before application of the sealant without loss of bonding effects, however, the primed surface should be covered to prevent dirt or contaminant pickup.

Masking

The use of masking tape is recommended where appropriate to ensure a neat job and to protect adjoining surfaces from over-application of primer. Primer that has been inadvertently over-applied onto adjacent surfaces can be extremely difficult to remove, especially on rough or porous substrates.

Storage Conditions

- Product should be stored in the original unopened container at 80°F (27°C) or lower. Lower storage temperatures can help maintain product stability.
- It is important to keep the container closed when not in use since prolonged exposure to moisture can result in gel formation or early product degradation.
- A slight white precipitate may form in storage. This should not impair performance of the primer. Do not shake the container prior to use, but carefully decant the clear primer from the top of the container as needed. A laboratory check of adhesion is recommended prior to product use.

Availability

Information on ordering can be obtained by contacting your local distributor or account manager. The Customer Service telephone number is: +1 (877) 943-7325.

Technical Services

Additional technical information and literature may be available from Momentive Performance Materials (MPM). Laboratory facilities and application engineering are available upon request from MPM. Any technical advice furnished by MPM or any representative of MPM concerning any use or application of any sealant is believed to be reliable but MPM makes no warranty, expressed or implied, of suitability for use in any application for which such advice is furnished.

Limitations

Customers must evaluate MPM products and make their own determination as to fitness of use in their particular applications.

- SS80, SS44UV, SS4044P & SS4004P primers are not recommended for use in food contact applications.
- Not recommended for use on wet, damp, frozen or contaminated surfaces.
- Not recommended to be applied to paints or plastic materials that are adversely effected by the solvents in the primer. Trial applications are recommended to verify chemical compatibility with surfaces.

Precautions

- These primers can be visible on substrates if inadvertently over-applied onto adjacent joint surfaces. See application section pertaining to masking.
- Care should be taken with some plastic substrates such as polystyrene, acrylics or polycarbonates, which can become slightly tacky when excessive primer is applied. This can be minimized or eliminated if the primer is applied with a single, continuous stroke.

Suggested References

In addition to the guidelines provided on this datasheet, MPM recommends that designers and users of GE construction primers familiarize themselves with the latest editions of following industry guidelines and best practices as it relates to priming:

1) ASTM C1193 Standard Guide for Use of Joint Sealants.
2) ASTM C1481 Standard Guide for Use of Joint Sealants with Exterior Insulation & Finish Systems (EIFS).
3) ASTM C1401 Standard Guide for Structural Sealant Glazing
4) SWR Institute's Applying Liquid Sealants Applicator Training Program.

Patent Status

Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute the permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.

Product Safety, Handling and Storage

Customers considering the use of this product should review the latest Safety Data Sheet and label for product safety information, handling instructions, personal protective equipment if necessary, and any special storage conditions required. Safety Data Sheets are available at www.siliconeforbuilding.com or, upon request, from any MPM representative. Use of other materials in conjunction with MPM sealants products (for example, primers) may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.

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