



GE Bayer Silicones

SS4004P, SS4044P, SS4120, SS4155

Silicone Primers for use with One and Two-Component RTV Silicone Compounds

Product Description

SS4004P, SS4044P, SS4120, and SS4155 primers are formulated for use with GE Silicones RTV silicone rubber adhesive sealants. GE Silicones one-component products offer primerless adhesion to many substrates. Primers are used to help promote adhesion to difficult-to-bond substrates. For most GE Silicones two-component products, a primer is required when an adhesive bond is needed between the silicone rubber compound and a non-silicone surface. All primers are one-component products and are supplied ready to use as pourable solvent solutions.

Key Performance Properties

- One component – no mixing
- Simple handling procedures and equipment for easy use and low processing cost
- Bright pink colour of SS4004P primer and blue colour of SS4155 primer permit easy visual determination of uniform films.
- Transparency of SS4120 primer preserves visibility with colourless RTV615, RTV655, RTV6156, RTV6157, RTV6166, RTV6166, RTV6186, and RTV6196 products

Applications

As indicated in the 'primer recommendation table', GE Bayer Silicones primers are recommended for use with specific two-component RTV silicone rubber compounds.

The primers may be used to bond these silicone products to metals (such as aluminum, copper, steel, and stainless steel), ceramics, glass, some rigid plastics, and wood.

Typically, adhesive strengths of 0.7 to 1.8 kN/m in a peel configuration and 1.4 to 4.2 MPa in lap shear may be developed.

Typical Product Data

Properties	SS4004P	SS4044P	SS4120	SS4155
Colour	Pink	Clear	Clear, Colourless	Blue
Silicone Content, %	15	16	3	10
Specific Gravity	0.86	0.86	0.82	0.82
Solvents	Acetone Isopropanol Xylene N-butanol	Acetone Isopropanol Xylene N-butanol	Ethanol Methanol	Mineral Spirits
Dry Time, hrs.	1	1	1	1
Flash Point, °C	-12	-12	-0.5	37
D.O.T. Label	Flammable	Flammable	Flammable	Flammable

Specifications

Typical product data values should not be used as specifications. Assistance and specifications are available by contacting GE Bayer Silicones Technical Service RTV1 and RTV2.

FDA STATUS

SS4044P and SS4120 primers can be used in food contact applications where FDA regulations apply.

Instructions for Use

All surfaces to be bonded should first be thoroughly cleaned with a suitable solvent such as naphtha or methyl ethyl ketone (MEK) to remove dirt, oil and grease. When practical, surfaces should be wiped dry before application of the primer coating. Abrasion of the surface will often improve adhesion. Primers may be applied by brushing, wiping, or dipping (spraying may sometimes produce erratic results). A thin, uniform primer coat of approximately 0.01 to 0.02 mm thickness usually provides the strongest bond. A drying time of one hour at room temperature is recommended prior to application of the RTV silicone rubber compound. On porous surfaces, a second coat of primer may be required. Allow at least one hour drying time between coats.

For all of these silicone primers sufficient humidity must be available for proper drying. A minimum of 25% relative humidity is recommended for all but SS4155 primer for which a minimum of 40% is recommended. Formation of a chalky white haze indicates adequate drying of the SS4155 primer. Do not remove or contaminate such film prior to application of the RTV silicone rubber compound. All other primers are transparent after drying.

PRIMER RECOMMENDATION TABLE

RTV Silicone Rubber Compound	Primers Recommended	
	Primary	Alternates
RTV11 thru 88	SS4004P	SS4044P, SS4155
RTV500 series	SS4004P	SS4044P, SS4155
RTV615, 655	SS4120	SS4155
RTV627	SS4155	SS4120
RTV630	SS4155	SS4120
RTV6156, RTV6157	SS4120	SS4155
RTV6166, RTV6186, RTV6196 RTV8000 Series	SS4004P	SS4044P

Handling and Safety

Material Safety Data Sheets are available upon request from GE BAYER SILICONES. Similar information for solvents and other chemicals used with the GE Bayer products should be obtained from your supplier. When solvents are used, proper safety precautions must be observed.

Storage and Warranty Period

The shelf life will be indicated by the 'use before date' on the associated documents with a minimum of 4 months when stored in the original unopened containers below 25° C.

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 suggested prior to product use.

Availability

SS4120 is available in 0.5 liter bottles

SS4155 is available in 0.5 litre bottles, 20 l. pails, 200 l. drums.

SS4004P/4044P are available in 0.5 litre bottles and 200 l. drums

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