Product Datasheet

SP&S Specialty Polymers and Services

Primax™ SF
Primax™ SFC

1-COMPONENT MULTIPURPOSE PRIMERS& SEALERS

Primax™ SF & Primax™ SFC Primers are designed to improve the adhesive strength of epoxy, polyurethane, silicone based adhesives, encapsulants, and coatings to a wide variety of materials. These primers are designed to improve adhesion to plastics, ceramics, composites, masonry, glasses, metals, and many other surfaces. They may be especially helpful when the CTE mismatch between substrates is high or when sealing the primed surface is helpful. Because they form a continuous film over the surface of the primed surface, they are helpful to prime and seal surfaces in order to prevent inhibition in silicone systems or minor moisture contamination in urethane systems.

Grade	Special Characteristics	Substrates	For Use With
Primax™ SF	Film Forming Primer	Most plastics, glass, ceramics, composites, metals, masonry, useful where CTE mismatch is high or sealing the surface is helpful.	Epoxy, Polyurethanes, Silicones, Polyesters, Polyaspartics, and other polymeric systems.
Primax™ SFC	Film Forming Primer with solvent blend adjusted to comply with Chinese import regulations.		

Grade	Color	Solvent	Flash point	Volatile organic Content (g/L)	Standard Shelf-life
Primax SF	Clear	Mixture	13°C (55°F)	861	12 months
Primax SFC	Clear	Mixture	-2°C (28.4°F)	430	12 months

ENHANCING ADHESION

Many epoxies, polyurethanes, and silicones are designed to adhere well to a most substrates, but some products and some surfaces require adhesion enhancement to achieve optimal bond strength or to ensure that the bond strength remains adequate when the bonds are subject to moisture or other environmental conditions. Primax SF and SFC both increase the bond strengths and protect the critical interfaces against moisture and other conditions that can weaken the bond over time.

SURFACE PREPARATION

For best results Primax SF and SFC must thoroughly wet-out and coat the surface to be bonded. For most applications, general, light surface abrasion is all that is required to provide a good clean surface and to increase the surface area for bonding. Steel wool, a wire brush, sandpaper, or abrasive pads are all suitable for light abrasion of most surfaces. After the abrasion, the surface should be dusted to remove any loose material and then cleaned and degreased with an aqueous cleaner, naphtha, mineral spirits, methyl ethyl ketone (MEK) or other suitable means of removing oils and other contaminants. A final surface wipe with acetone or IPA may also be helpful. Allow solvents to completely evaporate before applying the primer. Different cleaning techniques may give better results than others and the user should determine the best technique for each specific application.

For especially difficult-to-bond-to surfaces, it may be necessary to increase the surface reactivity by chemical etchants or oxidizers, or by exposing the surface to UV, corona, plasma or flame sources prior to priming.

APPLICATION
These products should be applied in a light, even coat by brushing, dipping or spraying. Excess material should be wiped off to avoid over-application, which generally appears as a chalky surface. When dip or spray coating, diluting by a factor of 2 to 4 with additional solvent may avoid excessive build-up on the parts.

CURE CONDITIONS
These products require moisture in the air to fully cure and are generally cured at room temperature and in 20% to 90% percent relative humidity for at least 1 to 2 hours. Low humidity and/or low temperature conditions require longer cure times. Mild heat acceleration of the cure rate may be possible but temperatures above 60°C (140°F) are not recommended. During application, the carrier solvent typically evaporates off quickly, allowing the active ingredients to begin to react with atmospheric moisture and bonding surfaces. Users should determine the best cure schedule and conditions for their applications.

SUGGESTED PROCESSING GUIDELINES:
The desired adhesive, castings materials, or coating should be applied after the primer has fully cured. Typically applying within 1-2 hours after the primer has fully dried is most desirable. In most situations, keeping the primed surface clean will allow application of desired materials to be delayed. However if more than 8 to 24 hours has elapse between the drying of the primer and the application of the material required to bond to it, applying an additional layer of primer may be necessary.

STORAGE AND SHELF LIFE
Shelf life is indicated on the product label. For best results, Primax primers should be stored below 35°C (94°F). Precautions must be taken to prevent moisture from contacting these materials before use. Containers should be kept tightly closed and head or air space minimized. Partially filled containers should be purged with dry air or other gases such as nitrogen to maximize shelf life. Small quantity of the Primax that are intended for immediate use should be poured into clean, dry containers and discarded when usage is complete. Primax primers should not be used once they become milky or a large amount of white precipitate is observed as this indicates moisture contamination has occurred. Repeated opening of the container can cause a small amount of white precipitate to form inside the container cap area, which does not affect the bulk material.

HANDLING PRECAUTIONS:
Mandatory and recommended industrial hygiene procedures should be followed whenever these products are being handled and processed. For additional information please consult the corresponding material safety data sheets.

PERSONAL HYGIENE:

Primax SF or Primax SFC
FLAMMABLE: AS WITH ALL INDUSTRIAL MATERIAL USE CAUSTION WHEN WORKING WITH THESE MATERIALS. Avoid breezing vapors. Keep away from sparks or open flames.

Avoid contact with eyes, skin, or clothing. Wear eye protection and impervious gloves when handling. Extending exposure could cause a slight irritation of the nasal passages, eyes, or skin. May cause eye & skin irritation. Wash thoroughly after handling. Use only with adequate ventilation. Do not take internally.

FIRST AID

In case of contact:

Skin – Immediately wash skin thoroughly with mild soap and water. Remove contaminated clothing and wash before reuse. Destroy contaminated shoes and other articles made of leather.

Eyes – Immediately flush eyes with plenty of water for 15 minutes and get prompt medical attention.

Inhalation - Remove person to fresh air. Administer oxygen or artificial respiration if necessary. Call a physician.

Ingestion - Do not induce vomiting. Dilute with plenty of water and contact physician immediately. Never give anything by mouth to an unconscious person.

DISCLAIMER:

IMPORTANT: The following supercedes Buyer's documents. **SELLER / MANUFACTURER MAKES NO REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, INCLUDING OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE**. No statements herein are to be construed as inducements to infringe any relevant patent. Under no circumstances shall Seller / Manufacturer be liable for incidental, consequential or indirect damages for alleged negligence, breach of warranty, strict liability, tort or contract arising in connection with the product(s). Buyer's sole remedy and Seller's sole liability for any claims shall be Buyer's purchase price. Data and results presented are based on controlled or laboratory work and must be confirmed by Buyer by testing for its intended conditions of use. The product(s) has not been tested for, and is therefore not recommended for, uses for which prolonged contact with mucous membranes, abraded skin, or blood is intended; or for uses for which implantation within the human body is intended

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