Product Datasheet

SP&S
Specialty Polymers and Services

Primax™ P

1-COMPONENT PRIMER FOR RUBBERS & THERMOPLASTICS

Primax™ P is a one component primer designed to improve adhesion of epoxy, urethane, and many other types of adhesive, coating, elastomers, and encapsulants applied to vulcanized rubbers and thermoplastics that are otherwise hard to bond.

The Primax™ P chemically modifies the surface of the material being primed to create better wetting and allow for greater chemical bonding of the surface. In wipe on applications it is also helpful in remove minor and soil from the surface being primed. Adhesive bonds to Primax P primed surfaces are generally more resistant to moisture, chemicals, humidity and thermal exposure than the same surfaces unprimed.

Primax™ P is intended for use on vulcanized rubbers including neoprene, isoprene, butyl rubber, EPDM, SBR, and natural rubber. It is also helpful with thermoplastic polyurethanes, PVC, ABS, PPS, and has shown success with some grades of polypropylene and polyethylene. Use of Primax P typically at increases the adhesive bond strength by 50% – 150% when bonding vulcanized rubbers, thermoplastics, and engineered plastics.

TYPICAL PROPERTIES	VALUE	TEST METHOD
Visual Appearance	Clear to translucent liquid	
Density	0.89 g/cm³	ASTM E-201
Viscosity, Part A, at 25ºC	< 80 cps	ASTM D-2393
Solids Content	2.5%	Calculated
Flash Point	-5°C	ASTM D-92

ENHANCING ADHESION

Many adhesive, potting materials, and coatings are designed to adhere well to a variety of substrates, but some products and some surfaces require adhesion enhancement to achieve optimal bond strength or to ensure that the bond strength remains satisfactory when the bonds are subject to moisture or other environmental conditions. Primax™ P increases the bond strengths of many adhesive, coating and other materials to rubber and thermoplastic surfaces, and it also creates a chemically modified surface that is more resistant to moisture & chemical attack. In some cases, this modification may provide enhanced heat resistance to the bond.

SURFACE PREPARATION

For best results Primax™ P must thoroughly wet-out and coat the surface to be bonded. The surface should be as free of dirt, rust, grease, mold releases, and other contaminants as possible as these could negatively affect adhesion. 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. Sandblasting and etching are also options for preparing the surface. In all cases, after 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.

APPLICATION

This product should be applied in a very light, even coat by wiping, dipping or brushing. Spraying may also be possible, but thinning may be necessary and this should be tested with the type of spray equipment to be used and these and other spraying parameters may affect the results.

To apply by wiping, use a clean, lint free cloth made of cotton or a synthetic material. Wipe on in thin layers and change the part of the cloth being used and the entire cloth as it become contaminated with soil from the surface being primed. For brushing, use nylon bristle or foam brushes. Do not use brushes with metal handles or collars as these may react with the primer. For dip applications, use glass or polyolefin containers to hold the primer and submerse the area to be primed and then allow the parts to drain while the primer dries for at least 10 – 15 minutes. If parts cannot drain completely use a lint free cotton or synthetic cloth to wipe the surface dry after 10 minutes or so. In any case allow the primer to air dry for at least 10 - 15 minutes until visually dry, before applying adhesives, coatings, encapsulants, or other materials that will bond to the surface.

CURE CONDITIONS

Air drying for 10 -15 minutes is sufficient to dry the primer and begin the chemical reaction between the primer and the surface. Full adhesion will develop over 1-2 hours, but the surface can be bonded with overlayers of adhesives, coatings, etc. and those materials cured as soon as the air drying is complete without compromising the priming effect.

SUGGESTED PROCESSING GUIDELINES:

The desired adhesive, castings materials, or coating should be applied after the primer has fully dried as mentioned above. Typically applying within 8 - 24 hours after the primer has dried is most desirable. However, in many applications, keeping the primed surface clean and free of contaminants will allow application of epoxy & urethane system to be delayed for longer periods. If the primer is not giving the fully priming effect after longer term storage, applying an additional layer of Primax P and allowing it to freshly dry may be necessary to achieve the desired performance.

STORAGE AND SHELF LIFE

Shelf life is indicated on the product label. For best results, *Primax* primers should be stored below 32°C (90°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.

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™ P

FLAMMABLE: AS WITH ALL INDUSTRIAL MATERIAL USE CAUTION 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 supersedes 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

Specialty Polymers & Services, Inc. (SP&S)
27822 Fremont Court **Tel: 661-294-1790**
Valencia, CA 91355 **Fax: 661-294-0640**
www.spolymers.com **info@spolymers.com**