

PR-425 primer

Description

PR-425 is a primer to enhance the coupling characteristics of polyurethane compounds to metal surfaces. The material cures to a durable coating with excellent resistance to weathering and water.

PR-425 is a two-part epoxy compound suitable for application by brush. The material cures at temperatures down to 40 °F (5 °C). An optional Part C may be used to achieve a thinner consistency with the use of PR-425R Thinner.

The following tests are in accordance with PRC-DeSoto International test methods.

Application properties (typical)

Color	
Part A	Amber
Part B	Grey
Mixed	Grey
Part C (optional)	Colorless

Mixing ratio by weight	part A: part B 25:100
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Base viscosity (Brookfield #6 at 10 rpm), Poise, (Pa-s)

Part B	340 (34)
Mixed	147 (15)
Mixed + 10 vol% PR-425R	57 (6)

Dry time to potting/molding @ 77°F (25°C), 50% RH, hours	1
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Application life @ 77°F (25°C), 50% RH, hours	5
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Performance properties (typical)

Specific gravity	1.4
Nonvolatile content, wt%	86
Recommended thickness, dry mils	2-4
Adhesion to metal	Excellent

Peel strength, pli (N/25 mm), using MIL-M-24041 Category A (PR-1547)	
AMS-QQ-A-250/11 (aluminum alloy)	64 (285)
CRES Type 316 (stainless steel)	71 (317)
QQ-N-281 Class A (monel)	69 (309)

Peel strength, pli (N/25 mm), using MIL-M-24041 Category B (PR-1592)	
AMS-QQ-A-250/11 (aluminum alloy)	52 (230)
CRES Type 316 (stainless steel)	61 (271)
QQ-N-281 Class A (monel)	61 (274)

Note: The application and performance property values above are typical for the material, but not intended for use in specifications or for acceptance inspection criteria because of variations in testing methods, conditions and configurations.

Surface preparation

Immediately before applying PR-425 primer to metallic substrates, the surfaces should be cleaned with solvents. Blasting using #50 angular steel grit between 80 and 90 psi is recommended for optimum performance. Contaminants such as grease and/or processing lubricants must be removed prior to sealant application.

A progressive cleaning procedure should be employed using the appropriate solvents and new lint free cloth (reclaimed solvents or tissue paper should not be used). Always pour solvent on the cloth to avoid contaminating the solvent supply. Wash one small area at a time.

It is important that the surface is dried with a second clean cloth prior to the solvent evaporating to prevent the redeposition of contaminants on the substrate.

Mixing Instructions

Mix according to the ratios indicated in the application properties section. Mix Part A and Part B separately to uniformity, then thoroughly mix entire contents of both parts of kit together taking care to avoid leaving unmixed areas around the sides or bottom of the mixing container.

For ease in application, the mixed material may be thinned by the addition of PR-425R. Thinning of the mixed material must be accomplished only after mixing of the two components. Thin up to 10% by volume with a blend of PR-425R, available separately for purchase.

Apply a thin coat of PR-425 to the surface by brush and allow to dry for approximately 1 hour at standard temperature. If primed surface becomes contaminated or potting is not accomplished within the application life, repeat priming procedure.

Substrate temperature during application and curing should be above 40 °F (5 °C) and should be at least 5 °F (3 °C) above dew point. Relative humidity during application and curing should not exceed 85%.

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Substrate composition can vary greatly. This can affect sealant adhesion. It is recommended that adhesion characteristics to a specific substrate be determined prior to application on production parts or assemblies.

For a more thorough discussion of proper surface preparation, please consult the SAE Aerospace Information Report AIR 4069. This document is available through SAE, 400 Commonwealth Avenue, Warrendale, PA 15096-0001.

Packing options

PR-425 is available as a two-component #7 kit (7 oz. total volume) and #14 kit (14 oz. total volume).

PR-425R is available separately for purchase in half-pint (8 oz. total volume) and pint (16 oz. total volume) containers.

Storage life

The storage life of PR-425 is at least 9 months when stored at temperatures below 27 °C (80 °F) in original, unopened containers.

Health precautions

This product is safe to use and apply when recommended precautions are followed. Before using this product, read and understand the Safety Data Sheet (SDS), which provides information on health, physical and environmental hazards, handling precautions and first aid recommendations. An SDS is available on request. Avoid overexposure. Obtain medical care in case of extreme overexposure.

For industrial use only. Keep away from children.

For emergency medical information call
1-800-228-5635.

Additional information can be found at:
www.ppgaerospace.com

For sales and ordering information call
1-800-AEROMIX (237-6649).

All recommendations, statements, and technical data contained herein are based on tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. User shall rely on his own information and tests to determine suitability of the product for the intended use and assumes all risks and liability resulting from his use of the product. Seller's and manufacturer's sole responsibility shall be to replace that portion of the product of this manufacturer which proves to be defective. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss, or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements other than those contained in a written agreement signed by an officer of the manufacturer shall not be binding upon the manufacturer or seller.

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