

02W053 Chrome-Free Corrosion-inhibiting Epoxy Primer

Product description

02W053 is a corrosion inhibiting, lead and chromate free epoxy primer.

- Corrosion inhibiting – designed to withstand 1000 hours salt spray and 40 cycles GMW 14872
- Lead and chromate free
- Chemical, solvent, and fluid resistant
- Free of hazardous air pollutants
- For steel and aluminum substrates

Components



Mix ratio (by volume):

- | | |
|----------------------------------|---------|
| • 02W053 (base component) | 4 parts |
| • 02W053CAT (catalyst component) | 1 part |

Note: Reducer is not required. For local conditions or preference, reduce admixed coating up to 20% by volume with Deft IS-279.

Specifications



02W053 primer is qualified to:

- MIL-DTL-53022 Type IV

Note: PPG Aerospace recommends you check the most recent specification QPLs for updated information.

Product compatibility:

02W053 primer is compatible with the following topcoat specifications:

- MIL-PRF-22750
- MIL-PRF-85582

Surface preparation and pretreatments



All surfaces must be thoroughly cleaned and free of rust, corrosion products, oil, grease, moisture, dirt, and loose paint. For additional information refer to TM-43-0139, "Painting Instructions for Army Materiel."

Steel surfaces: Sand blast per SSPC-SP6 to white (SP5) or near-white (SP10) as required, or treat with a zinc-phosphate chemical conversion coating in accordance with TT-C-490 Type I.

02W053 Chrome-Free Corrosion-inhibiting Epoxy Primer

Aluminum surfaces: Can be applied over clean, dry, intact aluminum surfaces pretreated in accordance with MIL-DTL-5541, MIL-A-8625, or equivalent.

Instructions for Use



Mixing instructions:

Gallon kit or quart kit: Stir or shake the base component to ensure that any pigment which may have settled on the bottom of the can has been fully incorporated into the base. Do not stir or shake the base component longer than 5 minutes. Slowly add 1 volume of the catalyst to 4 volumes of the base component. Mix by hand stirring, paint shaker or mechanical mixing to ensure the base/catalyst mixture is homogeneous. Do not shake or mechanically mix material for longer than 10 minutes. Constant agitation of the material during spray application is recommended.



Induction time:

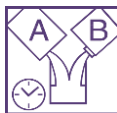
30 minutes



Viscosity (can kits): (23°C/73°F)

- #4 Ford cup 21 to 25 seconds

Note: Viscosities quoted are the typical values obtained when using specified mix ratio.



Pot life:

4 hours @ 21 - 25°C (70 - 77°F)

Application guidelines

Recommended application conditions:

Temperature	15 - 30°C (59 - 86°F)
Relative Humidity	20 - 70%

Spray application:

Ground the parts and the application equipment before priming. Stir the primer slowly during the application. The suggested film thickness is 33 to 43 microns (1.3 to 1.7 mils). This can be accomplished by one medium coat with 50% overlap.

These application guidelines represent PPG's best advice in standard conditions. Some parameters will be influenced by environmental conditions, equipment settings, and other variables.

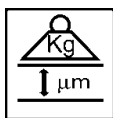
02W053 Chrome-Free Corrosion-inhibiting Epoxy Primer



Theoretical coverage:

20.7 square meters/liter at 25 microns dry film (845 square feet/gallon at 1 mil dry film)

Recommended dry film thickness: 33 to 43 microns (1.3 to 1.7 mils)



Dry film density:

1.8 grams/cubic centimeter (15.0 pounds/gallon)

Dry film weight:

45.66 grams/square meter at 25 microns dry film (0.00935 pounds/square feet at 1 mil dry film)



Equipment:

02W053 primer is compatible with all current forms spray equipment.

Equipment type	Tip size	Pot pressure	Atomization pressure at the cap
Electrostatic air spray gun	1.2 mm or 1.5 mm	10 to 20 psi (0.69 to 1.4 bar)	45 to 60 psi (3.1 to 4.1 bar)
Electrostatic air assisted airless spray gun	#611 or #613 (Graco Nomenclature)	700 to 1200 psi (48 to 82 bar)	40 to 60 psi (2.8 to 4.1 bar)
High Volume Low Pressure Spray Gun (HVLP)	1.0 mm to 1.4 mm	10 to 20 psi (0.69 to 1.4 bar)	10 psi maximum (0.69 bar)
Conventional air spray gun	1.2 mm to 1.8 mm	10 to 20 psi (0.69 to 1.4 bar)	45 to 60 psi (3.1 to 4.1 bar)

Equipment cleaning:

Use IS-237 (MIL-T-81772B Type II) or IS-279 Zero VOC Acrylic Thinner to remove any liquid or residual primer from equipment. Once material has cured, use an approved chemical paint removal system to strip primer from parts and equipment

Physical properties (product)



Color: White



Gloss: 10 – 40 G.U.

02W053 Chrome-Free Corrosion-inhibiting Epoxy Primer



Dry times	22 - 28°C (71 - 84°F)
Set-to-touch	60 minutes
Tack free	3 hours
Topcoat window	5 - 24 hours
Dry hard	6 hours
Full cure	7 days

Forced Dry Schedule: For dry to stack conditions only. Allow a minimum of 15 minutes flash off time at ambient temperatures prior to exposing painted parts to high temperatures. Complete testing should be done prior to use. Below are suggested starting points. Other variables may affect these cure schedules.

Temperature	Time
120°F	45 minutes
140°F	30 minutes
160°F	20 minutes
180°F	15 minutes

Note: Ambient temperatures are defined as 70° ± 10°F and 50% ± 10% relative humidity.

VOC

VOC:

Mixed, ready to use VOC (EPA method 24)	334 grams/liter
Base component	345 grams/liter
Catalyst component	276 grams/liter



Flash point closed cup:

Base component	38°C (100.4°F)
Catalyst component	36.1°C (97°F)

Shelf life:

12 months from date of manufacture

Note: Shelf life is provided for original, unopened containers

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.

02W053 Chrome-Free Corrosion-inhibiting Epoxy Primer

Storage recommendations



Inspect the condition of the container to ensure compliance. The material should be stored at temperatures between 21°C to 32°C (70°F to 90°F) to ensure shelf life.

Note: When procuring to a qualified material specification, follow those storage instructions.

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.

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

For sales and ordering information call the local PPG office at the numbers listed below:

Asia Pacific

ASC – Australia

Tel 61 (3) 9335 1557

Fax 61 (3) 9335 3490

ASC – Japan

Tel 81 561 35 5200

Fax 81 561 35 5201

ASC – South East Asia

Tel 65 6861 1119

Fax 65 6861 6162

ASC – Suzhou

Tel (86-512) 6661 5858

Fax (86-512) 6661 6868

ASC – Tianjin

Tel (86-022) 2482 8625

Fax (86-022) 2482 8600

Americas

1 (818) 362-6711 or 1-800-AEROMIX

Europe and Middle East

ASC – Central Europe

Tel 49 (40) 742 193 10

Fax 49 (40) 742 139 69

ASC – Middle East & India

Tel (971) 4 883 9666

Fax (971) 4 883 9665

ASC – North Europe

Tel 44 (0) 1388 770222

Fax 44 (0) 1388 770288

ASC – South Europe

Tel 33 (0) 235 53 43 71

Fax 33 (0) 235 53 54 44

02W053 Chrome-Free Corrosion-inhibiting Epoxy Primer

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.

PRC-DeSoto International, Inc.
12780 San Fernando Road
Sylmar, CA 91342
www.ppgaerospace.com

Issue Date: 3/19
Lit: 4642