



TECHNICAL INFORMATION POWDURA® CHEMICAL AGENT RESISTANT COATING

MIL-PRF-32348, Type 3, Class 1

UBS1-80004 Black 383, 37030
UGS1-80000 Green 383, 34094
UHS1-80000, Tan 686A, 33446

POWDURA Chemical Agent Resistant Coating (CARC) is an exterior grade Chemical Agent Resistant Topcoat for use on military equipment and assets.

THIS POWDER COATING CONFORMS TO MIL-PRF-32348, TYPE 3, CLASS 1 AND HAS BEEN APPROVED BY THE U.S. ARMY RESEARCH LABORATORY (ARL) ABERDEEN PROVING GROUNDS, ABERDEEN, MD – Q2203 - UBS1-80004 Black 383, 37030 Q2224 – UGS1-80000 Green, 383, 34094 Q2265- UHS1-80000 Tan 686A, 33446

APPLICATION

Cure Schedule: 10 min. at 400°F*
*Critical that the metal temperature reaches 400°F in order to meet gloss specifications.

Film Thickness Range:
UBS1-80004 Black 2.0-3.0 mils
UGS1-80000 Green 2.0-2.5 mils
UHS1-80000 Tan 2.0 – 2.5 mils

ATTRIBUTES

Specific Gravity:
UBS1-80004 Black 1.41 +/- 0.05 (g/ml)
UGS1-80000 Green 1.55 +/- 0.05 (g/ml)
UHS1-80000 Tan 1.55 +/- 0.05 (g/ml)

Coverage at 1.0 Mil
UBS1-80004 Black 137.0 sq.ft./lb.
UGS1-80000 Green 124.4 sq.ft./lb.
UHS1-80000 Tan 125.0 sq.ft./lb.

60° Gloss max: 1.0
85° Gloss max: 3.5
(ASTM D-523)

Adhesion min: 4B-5B
(ASTM D-3359)

Flexibility: Pass 1/4 " Mandrel Bend
(ASTM D-522)

Other Notes:

Storage: Powdura® Powder Coatings should be kept in a dry and cool area at temperatures below 80°F (27° C). Shelf life is approximately 12 months. When not in use, store powder in sealed containers: fine powders are hygroscopic.

Substrate Preparation:

Steel: Surface must be clean and free of grease, dirt, oil, rust, fingerprints, and other contaminants to ensure optimum adhesion and performance properties. Chemical pretreatment, (TT-C-490 type I) zinc phosphate gives best adhesion and performance results. Where blasting is appropriate, blast in accordance with SSPC-SP10 or SSPC-SP5.

Aluminum: Clean with acidic cleaner or other appropriate cleaner, depending on contamination. Pretreat with MIL-DTL-5514 or anodize per MIL-A-8625.

Galvanized and other metals - Clean and remove oxidation contamination on surface followed by treatment. Due to the variability in these surfaces, testing adhesion on each situation is recommended.

MIL-PRF-32348 Type 1 Primers must be applied under the topcoat to be compliant to MIL-PRF-32348 Type III.

** Sherwin-Williams recommends the following MILPRF-32348 Type 1 primers:*
- EHS2-20012 Off White Epoxy
- EWS8-60001 White Epoxy
Or Zinc Rich Epoxy Primers
- EAS6-C0025 Zinc Rich Epoxy Gray

NOTE: See MIL-DTL-53072 for details.

Testing: Due to the wide variety of substrates, surface preparation methods, application methods, and environments, the customer should test the complete system for adhesion and compatibility prior to full-scale application. The properties listed are typical and should not be construed as the actual specification.

APPLICATION

Powder coatings must be applied using suitable electrostatic equipment. Consult your Sherwin-Williams Representative regarding unique applications.

Product Limitations:
This product is part of a two (2) product system per MIL-PRF-32348 and MIL-DTL-53072. Using this product alone will not meet the above specifications.

Contact your Sherwin-Williams Representative where use of this product at higher than recommended film thickness may be required.

CAUTIONS

Thoroughly review product label for safety and cautions prior to using this product. Please direct any questions or comments to your local Sherwin-Williams facility.

CAUTION! Causes eye irritation, causes skin irritation, may cause allergic skin reaction, respiratory irritant, dust may cause eye and respiratory irritation, dust may form an explosive mixture in air. Avoid breathing dust. Avoid contact with eyes and prolonged or repeated contact with skin. Use protective clothing and NIOSH approved respirator. Do not use near sparks or open flame or any type of ignition source. Wash thoroughly after handling. Use only with adequate ventilation.

FIRST AID:

If on SKIN: Wash thoroughly with soap and water.

If in EYES: Flush with water immediately and procure medical attention. The area adjacent to the coating operation should be properly ventilated. Cure ovens must be exhausted to the outside atmosphere. All dusts are respiratory irritants; inhalation of the dust should be avoided. To avoid static electricity build-up, properly ground all equipment. Provide dust collection equipment with adequate explosion venting; dust clouds of any finely divided organic material can be ignited by open flame or electrical sparks.

DO NOT TAKE INTERNALLY. KEEP OUT OF REACH OF CHILDREN. FOR INDUSTRIAL USE ONLY. REFER TO MATERIAL SAFETY DATA SHEET FOR ADDITIONAL INFORMATION.

Note:

Product Data Sheets are periodically updated to reflect new information relating to the product. It is important that the customer obtain the most recent Product Data Sheet for the product being used. The information, rating and opinions stated above pertain to the material currently offered and represent the results of tests believed to be reliable. However, due to variations in customer handling and methods of application, which are not known, or under our control, The Sherwin-Williams Company cannot make any warranties or guaranties as to the end results

Grove City Powder
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