

# GEOGARD<sup>®</sup> SEAM SEALER

WATERPROOFING SYSTEM FOR METAL ROOFS

## PART 1 – General

### 1.01 General

- A. This document is intended to provide only **general** guidelines regarding the application of listed materials as furnished by Republic Powdered Metals, Inc. These general guideline specifications are **NOT** intended as project-specific specifications and should not be used as such. The information contained herein may be used, and modified where necessary, by the owner, architect, and contractor in preparing specifications for particular roofing projects. It is the responsibility of the owner, architect, and/or contractor to ensure that these general guideline specifications are consistent with the contractual and construction requirements relating to the project.

### 1.02 Quality Assurance

- A. Applicator's Qualifications
  - 1. Applicator shall have knowledge and general understanding of building design as well as Republic's products specified for the project.
  - 2. Applicator shall have business stability and own, or have access to, the equipment necessary for successful completion of the project
  - 3. Technical service on application and suitability of Republic's materials is available by contacting Republic Powdered Metals, Inc., 2628 Pearl Road, Medina, Ohio 44256.

### 1.03 Submittals

- A. In the normal course of bidding, descriptive literature and technical data on all materials proposed for usage under this specification will be submitted. A roof survey shall be submitted by the bidder identifying total area to be coated, including any repairs to seams and protrusions, and the general conditions of the existing roof.

### 1.04 Product Storage And Handling

- A. Storage of Materials: Store in accordance with manufacturer's recommendations.
- B. Handling and Protection of Materials: Meet requirements of manufacturer's recommendations for handling and protection of materials during installation. Handle products so that they are not contaminated by foreign materials.
- C. Damaged Materials: Contaminated or damaged materials shall not be used in the installation and shall be immediately removed from site upon discovery.
- D. Exercise caution when working with solvent based materials within the limitations described by the manufacturer.
- E. Warning: GEOGARD Seam Sealer contains solvents that may be irritable to some individuals, consult MSDS for GEOGARD Seam Sealer for precautionary information.

## PART 2 – Products as Manufactured by Republic Powdered Metals, Inc.

### 2.01 Coating System

- A. GEOGARD Seam Sealer

#### 1. Description

GEOGARD Seam Sealer is a single component, moisture curing, elastomeric polyurethane sealer formulated to provide a tough, flexible film for waterproofing metal roofing substrates, seams and fasteners.

#### 2. Performance Values

Weight per gallon (ASTM D 1475)	10.5 ± 0.2 lbs.
Solids by volume	80% ± 1%
Elongation @ 77° (ASTM D-2370)	220% ± 25%
Tensile Strength @ 77°F (ASTM D-2370)	270 psi
Dry time (ASTM D-1640)	24 hours tack free
Flash point (ASTM D-3278)	119° F
Clean-up	Republic Thinner #1 or Xylene

### 2.02 Accessory Materials

- A. PERMAFAB is a 100% stitch bonded polyester fabric used as a reinforcement in flashings and faulty seam repairs.

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## PART 3 – Execution

### 3.01 Preparation For Coating

#### A. Roof Panels

1. Loose rust, mill scale, and paint must be removed by any of the following: HAND TOOL CLEANING to include scraping, sanding, and wire brushing; POWER TOOL CLEANING to include power sanding, power wire brushing, or power grinding; WATER BLASTING to include high pressure water blast at not less than 2,000 psi.
2. Roof surfaces containing heavy soot, dirt, chemical contaminants, oil, grease, or wax deposits must be cleaned with a surface cleaner and rinsed thoroughly with high pressure water blast. Note: New galvanized panels must be weathered a minimum of six months or treated with a phosphoric acid wash to remove factory oil film.
3. Severe chalking, if evident, must be removed to ensure adhesion as must all debris, dust and dirt by using high pressure water wash.
4. Remove all existing acrylic and asphalt coatings and all existing sealants and mastics prior to installing GEOGARD Seam Sealer.
5. If metal panel finish is Kynar 500 or similar, please contact the Republic Technical Department for surface preparation recommendations.
6. Roof panels exhibiting holes and/or posing safety concerns should be replaced with new metal panels with a similar panel design.
7. Closely inspect underside of all metal panels for corrosion at endlaps, curbs and penetrations. Replace as required.

#### B. Roof Penetrations / Curbs

1. The base of all roof penetrations and curbs, i.e. stacks, vents, etc., must be sealed using GEOGARD Seam Sealer at the rate of 30–40 lineal ft./gal. in a three-course combination with PERMAFAB. A three-course combination consists of sealer / fabric / sealer.

#### C. Seams

1. All vertical and horizontal seams must be treated with GEOGARD Seam Sealer back-brushed into any open seam areas. GEOGARD is best applied by brush. (In typical situations one (1) gallon will cover approximately 100 lineal feet of seams at a thickness of 1/8"). Seams with openings between 1/8-1/4 inch, reinforce GEOGARD Seam Sealer with PERMAFAB in a three-course combination. Approximate coverage for GEOGARD Seam Sealer will be 30–40 lineal ft./gal. Seams with greater than ¼ inch openings must be drawn together with a self tapping sheet metal screw and neoprene washer.
2. Remove all acrylic and asphalt coatings and all existing sealants and mastics prior to installing GEOGARD Seam Sealer.

#### D. Ridge Caps

1. All seams on and around ridge cap must be sealed using GEOGARD Seam Sealer and PERMAFAB in a three-course combination. Approximate coverage for GEOGARD Seam Sealer will be 30-40 lineal ft./gal.
2. All seams around ridge ventilators must be sealed using GEOGARD Seam Sealer and PERMAFAB in a three-course combination. Approximate coverage for GEOGARD Seam Sealer will be 30–40 lineal ft./gal.

#### E. Fasteners

1. Remove and replace any fasteners previously coated with mastics or sealants. Replace stripped or missing fasteners using an oversize “repair type” fastener. BUILDEX TRAXX<sup>®</sup> or TEKS<sup>®</sup>, FABCO<sup>®</sup>, FAB-LOK<sup>®</sup>, or others.
2. Encapsulate all fasteners with GEOGARD Seam Sealer (one gallon will encapsulate approximately 200 fasteners).

#### F. Metal Components

1. Damaged fascia, gutters, vents, ridge caps, flashings, etc., must be replaced.

### 3.02 The Protective Coating

#### A. General

For optimum results, the protective coating must be applied after the morning dew has dried and postponed if rain is imminent.

#### B. Application

1. GEOGARD Seam Sealer shall be applied by brush. DO NOT THIN.
2. When applying GEOGARD Seam Sealer over a previously coated substrate, a test patch should be applied to determine compatibility and adhesion.

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3. Skill and experience of the applicator is important to the success of the coating application. Periodic checking of the film build is necessary to ensure best results.
4. Develop a systematic method for application of coating to surface.
5. Do not permit traffic on completed roof surfaces unless absolutely necessary, and only after complete cure.

## **3.03 Material Requirements**

## **3.04 Clean Up**

- A. As work progresses, it is essential to keep equipment in clean, working condition. After each day's application equipment should be cleaned as follows:
  1. REPUBLIC THINNER #1 or xylene should be used for general clean-up.
- B. At the conclusion of the project, all equipment should be cleaned and returned to its designated location. Disposal of empty, partially full or full drums should be discussed with the building owner, contractor, or engineer.

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## PART 4 – File Data

### 4.01 Enclosures

### 4.02 Warranty Disclaimer

- A. Please note that if Republic Powdered Metals is requested to furnish a warranty, the contractor/ owner must comply with the conditions for warranty issuance set forth on the reverse side of the warranty document, a sample copy of which is available upon request. Republic Powdered Metals reserves the right to refuse issuance of a warranty pursuant to such conditions.

Contact Republic Powdered Metals, Inc. for details regarding available warranties on the GEOGARD<sup>®</sup> Seam Sealer System.



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