

GENERAL GUIDELINE SPECIFICATION

# SOLARGARD<sup>®</sup> G ADHESIVE

RESTORATION SYSTEM FOR BUILT-UP 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 to Republic identifying total area to be coated, along with pictures of close up surface conditions, seams, and all details including any repairs to seams, protrusions, and general conditions of the existing roof along with a completed Notice of Award prior to Republic's acceptance of the project.

### 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.

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

### 2.01 Coating System

- A. SOLARGARD G Adhesive

1. Description

SOLARGARD G ADHESIVE is a white, highly reflective, low volatile surfacing adhesive. SOLARGARD G ADHESIVE is designed for application as a cold process aggregate restoration surfacing adhesive for most built-up and modified bitumen roof surfaces.

2. Performance Requirements

Asbestos Content (EPA 600/R-93/116)	None
Viscosity @ 77°F (ASTM D 2196-86)(1991)	8,000-14,000cPs
Density (ASTM D 6511-00)	4.5 lbs/gallon
VOC (ASTM D 6511-00)	250 g/l
Reflectance (ASTM C 1549-02)	71%
Emittance (ASTM C 1371-98)	0.85
Flash point (ASTM D – 93-97)	>100°F
SRI Value (ASTM E 1980)	86

### 2.02 Accessory Materials

- A. SOLARGARD SEAM SEALER is a white, single component, high solids moisture curing, aliphatic polyurethane sealer formulated to provide a tough, flexible film for waterproofing.
- B. PERMAFAB is a 100% stitchbonded polyester fabric used as a reinforcement fabric for flashing and surface break repairs.

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- C. SOLARGARD Ultra is a high solids, water-based, heavy bodied elastomeric coating formulated with a proprietary acrylic latex polymer.
- D. REPUBLIC WB Primer is a water-based asphalt primer for asphalt built-up and modified bitumen roofs.

## PART 3 – Execution

### 3.01 Preparation For Coating

#### A. Cleaning

1. Remove all loose gravel, dirt, dust, debris, etc., by mechanical brush, stiff broom, vacuum, power washing, etc. All surfaces must be clean and dry.
2. Flashings, blisters, and other damaged areas must be repaired and allowed to cure for 24 hours prior to applying the SOLARGARD G ADHESIVE to the entire roof.

#### B. Flashings

Flashings can be repaired using SOLARGARD SEAM SEALER or by replacement of compatible flashing material.

1. Cant strips should be provided at vertical surfaces to receive flashing.
2. PERMAFAB should be unrolled and cut to a maximum length of ten feet prior to setting in place.
3. Apply SOLARGARD SEAM SEALER to all areas in 1/8" thickness.
4. Embed PERMAFAB into the cement from 4" onto the roof surface to a minimum of 8" above roof surface. Adjacent pieces should be lapped a minimum of 4". Trowel or brush for proper adhesion and removal of all voids.
5. Apply a top coat of SOLARGARD SEAM SEALER at 1/8" thickness over the PERMAFAB and a minimum of 2" beyond edges.
6. Install metal counter flashing as required.
7. After proper cure period, prime all vertical flashings with REPUBLIC WB Primer at 200-400 sq. ft. per gal. followed by SOLARGARD ULTRA at a rate of 2 gals. per 100 sq. ft. (32 wet mils).

#### C. Blisters

1. Make an X-cut of sufficient size and completely open blister by folding back flaps, sponge out water and allow area to air dry. *If flaps are brittle, cut them off. Because of the thickness of typical modified bitumen membranes, if a brittle blister needs to be removed it will need to be replaced with granular modified bitumen cap sheet. The membrane should be installed per the manufacturers written specifications, to bring the roof membrane back to level with the existing membrane.*
2. Apply SOLARGARD SEAM SEALER at 1 gal./100 sq. ft. (16 wet mils) to the inside of the blister.
3. Replace flaps and apply SOLARGARD SEAM SEALER at 1 gal./100 sq. ft. (16 wet mils) and 8" wider than the blister area.
4. Cut PERMAFAB 6" wider than the blister area in each direction and embed in the SOLARGARD SEAM SEALER, brush for proper adhesion and removal of all voids.
5. Apply a second coat of SOLARGARD SEAM SEALER at 2 gal./100 sq. ft. (32 wet mils) over the PERMAFAB and taper a minimum of 2" beyond edges in each direction.
6. Coverage rate for finished repair (seam sealer / fabric / seam sealer) is approximately 30 lineal ft./gal. Rates can vary depending on size of repair.

#### D. Splits

1. Apply SOLARGARD SEAM SEALER about 1/8" thick over the area, 8" beyond the width of the split in each direction.
2. Cut PERMAFAB 6" wider than the split on each side and embed in the SOLARGARD SEAM SEALER.
3. Apply a 1/8" top coat of SOLARGARD SEAM SEALER over the PERMAFAB and a minimum of 2" beyond edges.

**NOTE:** If splits are extensive and continuous in one direction, determine cause before proceeding as more extensive repairs may be indicated.

#### E. Fishmouths

1. Cut fishmouth to provide a smooth edge and apply SOLARGARD SEAM SEALER.
2. Cut PERMAFAB to size and embed in mastic.
3. Apply a 1/8" top coat of SOLARGARD SEAM SEALER over the PERMAFAB and a minimum of 2" beyond edges.

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## 3.02 SOLARGARD G ADHESIVE

### A. Smooth BUR

1. Clean surface.
2. Repair flashings, blisters, and other damaged areas.
3. Prime all vertical flashings with REPUBLIC WB Primer at a rate of 200-400 sq ft. / gal.
4. Coat all vertical flashings with SOLARGARD ULTRA at the rate of 2 gals./100 sq. ft. (32 wet mils). Allow coating to dry.
5. Apply SOLARGARD G ADHESIVE at the rate of 4 ½ gal./100 sq. ft. (72 wet mils).
6. Broadcast white granules @ approximately 100 lbs./100 sq. ft.
7. Do not permit traffic on completed roof surfaces unless absolutely necessary, and only after complete cure. (30 days min)

### B. Gravel Surface BUR

1. Remove embedded gravel and clean surface.
2. Repair flashings, blisters, and other damaged areas.
3. After priming, coat all vertical flashings with SOLARGARD ULTRA at the rate of 2 gals./100 sq. ft. (32 wet mils). Allow coating to dry.
4. Apply SOLARGARD G ADHESIVE at the rate of 7 gal./100 sq. ft. (min)
5. Immediately broadcast white marble chips into wet coating to current local building code / dead load original design (typical 200 lbs./100 sq. ft.).
6. Do not permit traffic on completed surfaces unless absolutely necessary, and only after complete cure. (30 days min)

## 3.03 The Protective Coating

### C. Application

#### Spray Equipment Recommendation

**Pumps:** Graco King 45:1, Graco Bulldog 30:1 or gas powered equivalents. Graco GH733, HydraMax 350 or GMax 7900 or other manufacturer's equivalents.

**Hose/Pressure:** 50' – 300' length (depending on spray rig pressure). When using hoses longer than 100' use the next larger hose ID every 50'. Every 50' of hose will reduce the spray pressure of the rig by 10% at the gun tip.

**i.e., 300' hose – 3/4" (50/100') to 5/8" (50/100') to 1/2" (50/100') to 3/8"(50').**

Good results are generally obtained @ 2000–3000 psi at spray tip.

**Gun:** Graco Contractor Gun, Graco Contractor FTx gun, Graco Silver Plus or equivalent. (Tip extrusions or pole guns can be used).

#### \*Tip Sizes:

Fan Width (in)	.039	.043	.047	.051	.055	.059
10" – 12"	539	543	547	551	555	559
12" – 14"	639	643	647	651	655	659
14" – 16"	739	743	747	751	755	
16" – 18"	839	843	847	851	855	
Flow Rate	1.60 gpm	1.98 gpm	2.37 gpm	2.79 gpm	3.25 gpm	3.74 gpm

\* Graco Heavy - Duty RAC Switch tips (GHDXXX) Grey

\* Additional tip sizes are available between .039–.059.

\* Skill and experience of the spray applicator is important to the success of the coating application. Periodic checking of the film build is necessary to ensure best results.

\* Do not permit traffic on completed roof surfaces unless absolutely necessary, and only after complete cure.

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## 3.04 Clean Up

- A. As work progresses, it is essential to keep equipment in clean, working condition. If spray equipment is used, flush lines with mineral spirits or kerosene. General clean-up with same.
- 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.

## PART 4 – File Data

### 4.01 Enclosures

### 4.02 Warranty Disclaimer

- A. Please note that if Republic Powdered Metals has been 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 SOLARGARD<sup>®</sup> G ADHESIVE System.



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