Statguard® Epoxy Primer Application Instructions

Figure 1. Statguard® Epoxy Primer, Parts A and B, Item #46058

Description

Statguard® Epoxy Primer is a low viscosity, 100% solids, high build, fast cure, epoxy primer designed for use under the 46057 Statguard® Conductive Epoxy or where a high build primer is needed. This primer enhances adhesion by penetrating into the concrete substrate and helps reduce bubbling and pinholes that may occur when coating porous surfaces with high build coatings.

Per Handbook ESD TR20.20 ESD Floor section 5.3.4.7.3 “Epoxy and Polymeric Overlayments...have good chemical, solder, and abrasion resistance and will withstand heavy vehicle traffic. They are easier to maintain in comparison to other materials. They are seamless and can be used in many clean room environments. However, they cannot be used on access floor panels. Because epoxies are virtually manufactured on-site, proper installation techniques are critical to the successful performance of this type of material.”

General Guidelines:

Surface Preparation

FOR INTERIOR USE ONLY. NOT INTENDED FOR EXTERIOR USE. The surface must be clean, dry, free of oil, grease, form release agents, curing compounds, laitance, other foreign matter and be structurally sound. Remove all loose paint and mortar spatter. Use of Statguard® Epoxy Primer on improperly prepared surfaces is not recommended and will cause product failure.

New Poured Concrete
Cure at least 30 days. Test for moisture vapor content. Surface must be clean, dry, sound, and offer sufficient profile to achieve adequate adhesion. Minimum substrate cure is 28 days at 75°F. Remove all form release agents, curing compounds, salts, efflorescence, laitance, and other foreign matter by sandblasting, shotblasting, mechanical scarification, or suitable chemical means. Rinse thoroughly to achieve a final pH between 6.0 and 9.0. Allow to dry thoroughly prior to coating.

Old Poured Concrete
Surface preparation is done in much the same manner as new concrete; however, if the concrete is contaminated with oils, grease, chemicals, etc., they must be removed by cleaning with a strong detergent. Form release agents, hardeners, etc. must be removed by sandblasting, shotblasting, mechanical scarification, or suitable chemical means.

Wood:
A clean, sound wood surface is required. Remove any oils and dirt from the surface using degreasing solvent or strong detergent. Follow with sanding to remove loose or deteriorated surface wood and to obtain the proper surface profile. Remove all previously painted surfaces. If in sound condition, clean the surface of all foreign material. Smooth, hard or glossy coatings and surfaces should be removed. Apply a test area, allowing the primer to dry one week before testing adhesion.

Moisture in Flooring

For applications on concrete or porous surfaces, excess moisture in or below the material or concrete slab is the cause for many coating failures. Failures such as bond failures, warping, peeling, and bubbles can appear months or years later due to the flow of moisture or moisture vapor through concrete. Ways to avoid such failures include: placing concrete over an efficient vapor barrier, use low water-cement ratios in the concrete mix, adequately cure concrete, and test and measure moisture transmission using a calcium chloride test. The moisture levels cannot exceed 3 lbs. per 1,000 square feet per 24 hours a day.

Moisture Testing

Test the floor for moisture and pH using a Calcium Chloride moisture test kit. We recommend the Statguard Flooring 81305 Moisture Detection Test Kit. The moisture levels cannot exceed 3 lbs. per 1,000 square feet per 24 hours a day. Ensure that your floor is porous and breathing well before performing the test. If it is nonporous, then sand it with very abrasive sandpaper to open it up. It is porous enough when a few drops of water dropped on the surface readily absorb within 30 seconds. One test should be performed at every 1,000 square feet of space. The pH cannot exceed 9; it must be neutralized before installing if it is too high. Be careful to follow the instructions and perform the test correctly to ensure against failures.

Note: Keep in mind, that even if a moisture test shows that the floor has acceptable moisture levels, it is only at the time of the test that the levels were acceptable. It is possible for the weather, sprinkler systems, or other causes to bring the floor to unacceptable levels of moisture.

Therefore, it is very important that some moisture vapor control and prevention was built for the floor as well, in the way of a moisture barrier. If no moisture barrier exists, then one should be installed. Any on or below grade slab should have a moisture barrier, according to industry standards. These recommendations are about our products ability to bond to sub floors.

Concrete as Under Layment

This should be heavyweight, or a manufacturer's guaranteed cement mix, installed according to manufacturer's specs. An out-of-level floor needs to be leveled by an experienced installer. Use a Portland cement type-leveling compound that will provide a minimum 3,500 PSI compressive strength (ASTM C109), be sufficiently bonded to the floor and properly dried prior to installation of flooring. Failures can occur from patch or leveling compound not given sufficient time to dry.

Concrete Sub-Floor Preparation

ASTM F710-92 should be followed in preparing concrete sub floors to receive floor coatings. Fill all cracks, depressions, etc. with the leveling compounds according to manufacturer's specifications. The sub floor needs to be clean, dry, smooth, level, structurally sound and free of dust, solvent, oil, grease, wax, paint, sealing compounds, old adhesive, or other foreign materials. Remove any curing, hardening, or breaking compounds using mechanical means, not solvents or chemicals.

Adhesion Testing

Representative areas should be tested for adhesion performance of the primer before applying coating to the entire floor. A licensed contractor is recommended to perform proper moisture testing and adhesion testing. To best ensure consistent results, the test should be done at various locations. Allow newly applied coating to dry a minimum of 48 hours before proceeding with the test. At humidity levels over 55% RH, allow 72 hours of drying time before testing. Use a razor to cut a cross or a few perpendicular lines over a 3" by 3" (75 mm by 75 mm) area on several spots of the thoroughly dried area. Use a piece of masking tape to cover the marked area. Make sure the tape is thoroughly adhered to the test area. Pull the tape off the surface and examine the amount of primer which has peeled off during the test. If any significant portion is transferred to the tape, better surface preparation (acid etching, cleaning or sanding) should be done on the substrate to enhance the adhesion.

Thinning

NOT RECOMMENDED.

Mixing

Before mixing Statguard® Epoxy Primer it is important that the surface is completely prepared and ready and that all tools and equipment are handy. To mix: Use electric or air mixer (approximately 250 rpm) with metal mixing blade (Jiffy Model HS or equal). Pre-mix both components. The mix ratio is 3 parts B to 1 part A by volume. Parts A and B are supplied pre-measured. Pour 1 gallon Part A hardener contents into the supplied 5 gallon Part B container holding the premeasured 3 gallons and mix for 2 to 3 minutes until material is thoroughly blended.

Application Conditions

Temperature:	55°F minimum, 95°F maximum (air, surface, and material)
	At least 5°F above dew point

Relative humidity: 85% maximum

Application

FOR INTERIOR USE ONLY. NOT INTENDED FOR EXTERIOR USE. Immediately pour entire mixture onto the prepared substrate and spread material using a flat, rubber squeegee using sufficient pressure to work the primer into the porous surface. Immediately backroll the material with a quality 3/8" nap roller leaving 6-10 mils on the surface.

The fast set primer can be topcoated in 6 hours at 72°F. The primer must be tack free before topcoating. If pinholes or porosities are evident after initial cure of primer, repriming may be necessary, especially on very porous concrete.

Spread Rate

Apply primer at the recommended film thickness and spreading rate as indicated below:

Recommended Spreading Rate:

Wet mils:	8.0
Dry mils:	8.0
Coverage:	200 sq ft/gal approximate

Application of primer above maximum (10 mil) or below minimum (6 mil) recommended spreading rate may adversely affect coating performance.

Note: Apply by squeegee or roller only.

Performance Tips

Spreading rates are calculated on volume solids and do not include an application loss factor due to surface profile, roughness or porosity of the surface, skill and technique of the applicator, method of application, various surface irregularities, material lost during mixing, spillage, overthinning, climatic conditions, and excessive film build.

No reduction of material is recommended as it can affect film build, appearance, and adhesion.

Do not apply the material beyond recommended pot life.

Do not mix previously catalyzed material with new.

Refer to Product Information sheet for additional performance characteristics and properties.

Drying

Drying Schedule @ 8.0 mils wet @ 50% RH:

	@ 72°F
To touch:	4 - 6 hours
To recoat:	
minimum:	6 hours
maximum:	24 hours
To cure:	7 days

If maximum recoat time is exceeded, abrade surface before topcoating. Drying time is temperature, humidity, and film thickness dependent.

Clean Up

Clean spills and spatters immediately with reducer. Clean tools immediately after use with reducer. Follow manufacturer's safety recommendations when using any solvent.

Product Characteristics

Finish:	Satin Sheen
Color:	Clear
Pot Life:	30 minutes @ 72°F
VOC:	0 g/l; 0 lb/gal, mixed
Mix Ratio:	2 components, premeasured 3:1 by volume
Sweat-in-time:	None
Shelf Life:	18 months, unopened Store indoors at 40°F to 100°F
Flash Point:	>200°F, PMCC, mixed
Reducer:	Not Recommended

Performance Characteristics

- Abrasion resistant
- Fast dry
- Chemical resistant
- Impact resistant
- Low odor
- 100% solids
- 0 VOC
- Dry heat resistance: 180°F

WARNING! IRRITANT! HARMFUL IF SWALLOWED. MAY CAUSE EYE, NOSE AND THROAT IRRITATION. AVOID CONTACT WITH SKIN AND EYES AND AVOID BREATHING OF VAPORS AND SPRAY MIST. WEAR EYE PROTECTION AND PROTECTIVE CLOTHING.

USE WITH ADEQUATE VENTILATION.

To avoid breathing vapors and spray mist, open windows and doors or use other means to ensure fresh air entry during application and drying. If you experience eye watering, headaches or dizziness, increase fresh air and use a properly fitted respirator (NIOSH approved for organic vapor with P Series particulate prefilter). Obtain professional advice before using. A dust mask does not provide protection against vapors. Avoid contact with eyes and skin. Wash thoroughly after handling. Close container after each use. FIRST AID: If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately. In case of eye contact, flush immediately with plenty of water for at least 15 minutes and get medical attention; for skin, wash thoroughly with soap and water. If swallowed, get medical attention immediately.

CAUTION: KEEP OUT OF REACH OF CHILDREN. DO NOT TAKE INTERNALLY.

Limited Warranty

Statguard® Flooring expressly warrants that for a period of one (1) year from the date of purchase, Statguard® Epoxy Primer will be free of defects in material (parts). Within the warranty period, the material will be tested, repaired or replaced at Statguard® Flooring option, free of charge. Call our Customer Service Department at (781) 821-5609 (Canton, MA) for a Return Material Authorization (RMA) and proper shipping instructions and address. You should include a copy of your original packing slip, invoice, or other proof of purchase date. Any material under warranty should be shipped prepaid to the Statguard® Flooring factory. Warranty replacements will take approximately two weeks.

Warranty Exclusions

THE FOREGOING EXPRESS WARRANTY IS MADE IN LIEU OF ALL OTHER PRODUCT WARRANTIES, EXPRESSED AND IMPLIED, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WHICH ARE SPECIFICALLY DISCLAIMED. The express warranty will not apply to defects or damage due to accidents, neglect, misuse, alterations, operator error, or failure to properly maintain, clean or repair products.

Limit of Liability

In no event will Statguard® Flooring or any seller be responsible or liable for any injury, loss or damage, direct or consequential, arising out of the use of or the inability to use the product. Before using, users shall determine the suitability of the product for their intended use, and users assume all risk and liability whatsoever in connection therewith.

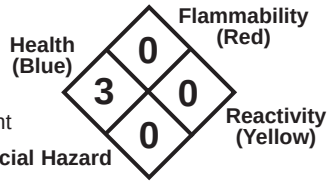
STATGUARD FLOORING

90 HUDSON ROAD
CANTON, MA 02021
PHONE (781) 821-5609
FAX (781) 575-0172
StatguardFlooring.com

Material Safety Data Sheet
Material Safety Data Sheet may be used to comply with
OSHA Hazard Communication Standard 29 CFR 1910.1200
Essentially Similar to OSHA-174
Date: 2007-09-26

NFPA Designation 704

Degree of Hazard
4 = Extreme
3 = High
2 = Moderate
1 = Slight
0 = Insignificant



STATGUARD® EPOXY PRIMER, PART A

1. DENTIFICATION OF THE PRODUCT and OF THE ENTERPRISE

Chemical name: Statguard® Epoxy Primer

Manufacturer: Desco Industries Inc.
90 Hudson Road
Canton, MA 02021
U.S.A.

Emergency Phone: (781) 821-8370
Fax:(781) 575-0172

2. INFORMATION ON INGREDIENTS/COMPOSITION

Ingredients	Weight	CAS-No.	TLV-value	OSHA-PEL
Bisphenol A/Epichlorhdrin Epoxy	60-100%	25068-38-6	2 PPM	5 PPM
Alkyl Glycidyl Ether	5-25%	68609-97-2	N/A	N/A
Nonyl Phenol	5-25%	84852-15-3	N/A	N/A

HMIS Rating	Health	3	Reactivity	0
	Flammability	0	Personal Protection	X

3. HAZARDS IDENTIFICATION

Eyes	Causes mild irritation.
Skin	May cause mild irritation.
Ingestion	May cause mild irritation.
Inhalation	Spray mist may irritate respiratory tract.

4. FIRST AID MEASURES

Eye Contact	Flush eyes with water for 15 minutes. Contact physician.
Skin Contact	Wash with soap and water.
Ingestion	DO NOT induce vomiting. Contact a physician.
Inhalation	Move subject to fresh air.

5. EXTINGUISHING MEASURES

Proper Extinguishing Media	Foam, Dry chemical or carbon dioxide
Protective Clothing	Wearing of appropriate protective equipment
Special Procedures	Cool containers with water

6. MEASURES TO EXPOSURE OF PRODUCT

Personal Precautions	Wearing protective clothing, neoprene gloves, and goggles. Apply in well-ventilated areas.
Environmental Precautions	Biodegradable
Cleaning Procedures	Absorb spill with inert material (e.g. sand or earth), then place in a chemical waste container. Observe all applicable local, state and federal waste managements regualtions.

7. HANDLING AND STORAGE

Handling	Use in well-ventilated areas; avoid breathing vapors. Keep containers closed when not in use. Avoid from freezing.
Storage	Storage Temperature: 50°F - 110°F (10°C - 43°C) Keep from freezing

8. EXPOSURE CONTROL/PERSONAL EXPOSURE

Other Regulations	None
Measures For Technical Control	Preferences of technical measure to prevent or control contact with the product. Isolating process and personnel, mechanical ventilation (dilution and local exhaust) and the regulation of process conditions. In case of non-prevention or non-control, a proper protective wearing should be used.
Respiratory Protection	Wear MSHA/NIOSH approved respirator where exposure limits are exceeded or spray mist occurs.
Hand Protection	Impervious/Neoprene Gloves
Eye Protection	Safety glasses or Chemical Splash Goggles (ANSI Z-87.1)
Work/Hygienic Practices	Wash hands before eating, smoking, or using washroom facilities
Ventalation	Use a local exhaust fan if the vapor concentration is above the LEL and TLV.

N/A = Not Applicable; NE = None Established

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	Liquid
Color	Clear
Smell	None
pH	7.0-8.0
Boiling Point at °C	>392°F (200°C)
Melting Point at °C	N/A
Flash Point at °C	>250°F
Inflammability Limits (vol.% in air)	N/A
Solubility in water	0.0% Soluble
VOC per Method 24 of EPA	.02
Vapor Pressure (mmHg)	1
Vapor Density (air=1)	Heavier than air
Density at 20°C	9.18 lbs./gal
Specific Gravity (H_20=1)	1.102
Inflammability	Classification according to EC-regulations "non-flammable"
Ignition Temperature	N/A
Evaporation Rate	Slower than n-butyl acetate

10. STABILITY AND REACTIVITY

Stability/Reactivity	Stable product at normal conditions
Conditions to avoid	Temperatures above 110°F (43°C) and below 50°F (10°C)
Materials to avoid	Acids, Alkaline materials, Strong oxidizing agents
Hazardous Decomposition	Aldehydes, Carbon dioxide, Carbon monoxide

11. TOXICOLOGICAL INFORMATION

All information refers to the main component Isopropanol

Acute toxicity	None Known
Special Effect	None Known

12. ECOLOGICAL INFORMATION

No environmental hazards have been reported or known.

Degradability	N/A
Bioaccumulation	Not likely
Ecotoxicity	None known
Reference to BimSchV	N/A
Hazard Classification	None Hazardous

13. DISPOSAL CONSIDERATIONS

Product	Absorb with inert material (e.g. sand or earth), then place in a chemical waste container. Observe all applicable local, state and federal waste managements regualtions.
Hazardous Waste Number	Nonregulated

14. TRANSPORT INFORMATION

This product is not classified for transport under ADR/IMDG regulations.

15. REGULATORY INFORMATION

Physical/Chemical Indication	Non-flammable
Risk Phrase R36/37/38	Irritating to eyes, respiratory system, and skin
Safety Phrase	(S2): keep away from children, (S7): keep containers well closed, (S24/25): avoid contact with skin and eyes, (S62): if swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.
EU Classification (67/548/EEC-88/379/EEC)	This product does not have to be classified according to the EU Regulations.
EINECS Status	All components are included in the EINECS Inventories
TSCA	All ingredients of this product are listed or are excluded from the listing on the U.S. Toxic Substance Control Act (TSCA) Chemical Substance inventory.

16. OTHER INFORMATION

Further Information	None Known

Disclaimer

The information given in this publication has been worked up to the best of the knowledge of Desco Industries Inc, as well as taking into consideration the applicable laws and regulations. We cannot anticipate all conditions under which this information and our products or the products of the manufacturers in combination with our products may be used. We accept no responsibility for the results obtained by the application information or the safety and suitability of our product or product combination with other products. Users are advised to make their own tests to determine the safety and suitability of each such product or product combination for their own purposes. Unless otherwise agreed in writing, we sell the products without warranty, and buyers end users assume responsibility and liability for loss or damage arising from the handling and use of our products, whether used alone or in combination with other products.

DESCO INDUSTRIES INC. • 3651 Walnut Avenue, Chino, CA 91710 • (909) 627-8178 • Fax (909) 627-7449 • Web Site: DescoIndustries.com

Material Safety Data Sheet
Material Safety Data Sheet may be used to comply with
OSHA Hazard Communication Standard 29 CFR 1910.1200
Essentially Similar to OSHA-174
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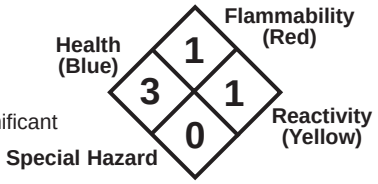

STATGUARD® EPOXY PRIMER, PART B

1. DENTIFICATION OF THE PRODUCT and OF THE ENTERPRISE

Chemical name: Statguard® Epoxy Primer

Manufacturer: Desco Industries Inc.
90 Hudson Road
Canton, MA 02021
U.S.A.

Emergency Phone: (781) 821-8370
Fax:(781) 575-0172

2. INFORMATION ON INGREDIENTS/COMPOSITION

Ingredients	Weight	CAS-No.	TLV-value	OSHA-PEL
Nonyl Phenol	5 - 25%	84852-15-3		
M-Xylene Diamine	30 - 60%	1477-55-0		
Isophorone Diamine	5 - 25%	2855-13-2		
Polyoxyproylene Diamine	5 - 25%	TS		

HMIS Rating	Health	3	Reactivity	1
	Flammability	1	Personal Protection	NONE

3. HAZARDS IDENTIFICATION

Eyes	May cause severe irritation withc corneal injury, which may result in permanent impairment of vision, even blindness. Vapors may irritate eyes.
Skin	May cause severe injury to skin following prolonged or repeated contact, and may cause skin sensitization or other allergic responses.
Ingestion	May cause severe and permanent damage to mouth, throat and stomach.
Inhalation	Vapors/mists may be corrosive to upper respiratory tract. Repeated exposure may result in lung damage. May be toxic if inhaled.

4. FIRST AID MEASURES

Eye Contact	Flush eyes with water for 15 minutes. Contact a physician.
Skin Contact	Flush skin with plenty of water for at least 15 minutes. Contact a physician.
Ingestion	DO NOT induce vomiting. Give one glass of water unless victim is drowsy. Contact a physician.
Inhalation	Move subject to fresh air. Contact a physician.

5. EXTINGUISHING MEASURES

Proper Extinguishing Media	Carbon Dioxide, Dry Chemical, Foam. Water may cause frothing.
Protective Clothing	Wearing of appropriate protective equipment
Special Procedures	Cool containers with water

6. MEASURES TO EXPOSURE OF PRODUCT

Personal Precautions	Wearing protective clothing, butyl or viton rubber gloves, and goggles. Apply in ventilated areas.
Environmental Precautions	Biodegradable
Cleaning Procedures	Ventilate area. Pick up with absorbent material and place in closed containers. Large spills should be diked and removed to a waste tank. Incinerate in an approved incinerator or dispose of in a chemical dump in accordance with local, state and federal regulations.

7. HANDLING AND STORAGE

Handling	Use in well-ventilated areas; avoid breathing vapors. Keep containers closed when not in use. Avoid from freezing.
Storage	Storage Temperature: 50°F - 110°F (10°C - 43°C) Keep from freezing

8. EXPOSURE CONTROL/PERSONAL EXPOSURE

Other Regulations	None
Measures For Technical Control	Preferences of technical measure to prevent or control contact with the product. Isolating process and personnel, mechanical ventilation (dilution and local exhaust) and the regulation of process conditions. In case of non-prevention or non-control, a proper protective wearing should be used.
Respiratory Protection	Wear MSHA/NIOSH approved respirator where exposure limits are exceeded
Hand Protection	Butyl or Viton Rubber Gloves
Eye Protection	Safety glasses or Chemical Splash Goggles (ANSI Z-87.1)
Work/Hygienic Practices	Wash hands before eating, smoking, or using washroom facilities

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	Liquid
Color	Clear, light colored
Smell	Amine odor
pH	7.0-8.0
Boiling Range at °C	>247°C
Melting Point at °C	N/E
Flash Point	>200°F
Inflammability Limits (vol.% in air)	N/A
Solubility in water	Partial
VOC per Method 24 of EPA	0
Vapor Pressure (mmHg)	0.1 @ 20°C
Vapor Density (air=1)	Heavier than air
Density at 20°C	8.3 lbs./gal
Specific Gravity (H_20=1)	1.0
Inflammability	Classification according to EC-regulations "non-flammable"
Ignition Temperature	N/A
Evaporation Rate	Slower than n-butyl acetate

10. STABILITY AND REACTIVITY

Stability/Reactivity	Stable product at normal conditions
Conditions to avoid	Open flame and sparks
Materials to avoid	Strong oxidizing agents
Hazardous Decomposition	Acrid fumes, CO, CO_2, unknown nitrogen compounds

11. TOXICOLOGICAL INFORMATION

Acute toxicity	None Known
Special Effect	None Known

12. ECOLOGICAL INFORMATION

No environmental hazards have been reported or known.

Degradability	N/A
Bioaccumulation	Not likely
Ecotoxicity	None known
Reference to BimSchV	N/A
Hazard Classification	None Hazardous

13. DISPOSAL CONSIDERATIONS

Product	In accordance with local, state and federal regulations.
Hazardous Waste Number	Nonregulated

14. TRANSPORT INFORMATION

This product is not classified for transport under ADR/IMDG regulations.

15. REGULATORY INFORMATION

Physical/Chemical Indication	Non-flammable
Safety Phrase	(S2): keep away from children, (S7): keep containers well closed, (S24/25): avoid contact with skin and eyes, (S62): if swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.
EU Classification (67/548/EEC-88/379/EEC)	This product does not have to be classified according to the EU Regulations.
EINECS Status	All components are included in the EINECS Inventories
TSCA	All ingredients of this product are listed or are excluded from the listing on the U.S. Toxic Substance Control Act (TSCA) Chemical Substance inventory.

16. OTHER INFORMATION

Further Information	None Known

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