

DUDICK, INC.

Corporate Offices

1818 Miller Parkway  
Streetsboro, OH 44241  
330-562-1970

800-322-1970

330-562-7638

www.dudick.com

**PROTECTO-COAT 300 IMPROVED**  
**HIGH BUILD FLAKE FILLED,**  
**100% SOLIDS, HIGH BUILD EPOXY**  
**COATING; BUILDS TO 15-20 MILS DFT**  
**PER COAT OR THINNED 8-10 MILS DFT**

## FEATURES

USDA & FDA Compliant  
Meets all VOC Requirements  
No Volatile Organic Compounds  
Low Odor  
Environmentally Safe  
Fast Setting  
Anti-Microbial

## RECOMMENDED APPLICATIONS

\*\*Storage Tanks, including potable water, high or low fat dairy products and beverages containing alcohol.  
Chemical Plant Process Piping  
Waste Treatment Clarifiers  
Structural Steel Components  
Food & Beverage Processing Facilities  
Clean Rooms

## CHEMICAL RESISTANCE

Dilute Inorganic Acids    Salt & Brine  
Aliphatic Hydrocarbons    Mineral Oils  
Sodium Hydroxide  
Ammonium Hydroxide

## TEMPERATURE LIMITS (METAL APPLICATIONS)

Immersion up to 120° F  
Dry - 250°F - Continuous  
300°F - Intermittent

**COLORS:** Standard Color Chart available upon request.

## PHYSICAL PROPERTIES

Taber Abrasion	120 mg.	ASTM D-4060
Flame Spread	<5 mm.	self extinguish
ASTM D-635		
VOC	0	ASTM D-3960
WVT	0.0018 perm. in.	ASTM E-96
Fungus Resistance	No Growth	
U.S. Mil Std. 810E		
Tensile Elongation	10%	ASTM C-307

**\*\*Protecto-Coat 300 Improved** meets the specifications for extraction studies in accordance with CFR Title 21,175.300, Polymeric and Resinous Coatings. Analytical reports are available on request.

## SPECIFICATIONS

**Protecto-Coat 300 Improved** shall be an amine cured epoxy coating applied in one or two 15-20 mil coats as manufactured by Dudick, Inc. Material shall be applied by brush, roller, or spray in accordance with the manufacturer's recommended practices. If **Protecto-Coat 300 Improved** is thinned with xylene @ 2 to 3 ounces per gallon it can be applied in 8-10 mil layers.

**THE PROTECTO-COAT 300 IMPROVED SYSTEM**

**Protecto-Coat 300 Improved** uses a moisture-tolerant primer and one or two coats of flake filled, low odor epoxy resin to achieve high build and provide protection for metal and concrete substrates.

**Primer 67** is designed to prevent abrasive blasted steel from developing rust bloom prior to the application of the **Protecto-Coat 300 Improved**. For maximum performance, all metal surfaces should be primed, but primer may not be needed for mild, non-immersion service. Concrete must be primed to aid in the “wetting out” required for good bonding.

**Primer 67C** is designed for applications on concrete where spark testing is required or specified.

**Basecoat/Topcoat:** The unique hybrid binder and flake fillers in **Protecto-Coat 300 Improved** provide the low permeability, high film integrity, and excellent chemical resistance required for prolonged substrate protection. For atmospheric exposure, a single 8-10 mil DFT application of **Protecto-Coat 300 Improved** may be sufficient. Total DFT (with primer) should be 9-11 mils, minimum.

For heavy spillage or total immersion areas, two 8-10 mil finished coats can be applied over primer to achieve a DFT of 16-20 mils.

If time constraints require short coating windows **Protecto-Coat 300 Improved** can be applied un-thinned in one (1) coat 15-20 mils DFT.

However, because conditions can vary widely between these two extremes (as when concentrated fumes or only occasional spillage is encountered), a DFT between 8 and 16 mils may be adequate and more economical. Consult

a Dudick Representative with specific conditions and applications.

**ESTIMATING QUANTITIES AND ORDER BILL OF MATERIAL – 100% Solids**

<b>APPROXIMATE SQUARE FEET PER GALLON**</b>	
<b>PRIMER -See specified primer data sheet</b>	
<b>Protecto-Coat 300 Improved</b>	
<b>1<sup>st</sup> Coat</b>	<b>80-100 Ft<sup>2</sup> @ 15-20 mils</b>
<b>2<sup>nd</sup> Coat</b>	<b>80-100 Ft<sup>2</sup> @ 15-20 mils</b>

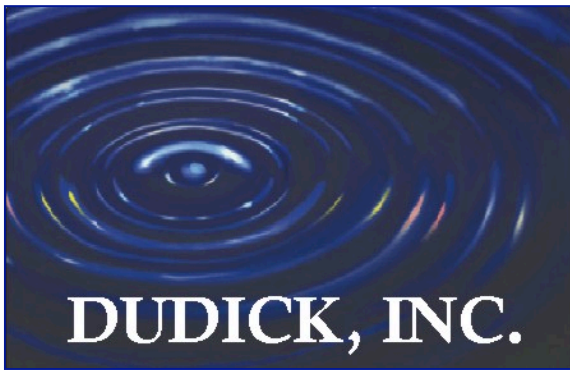
\*\*Quantities shown are for estimating purposes only. Actual field usage may vary.

**APPLICATION INSTRUCTIONS SURFACE PREPARATION**

**Metal:** Metal surfaces must be abrasive blasted to an appropriate finish.

Immersion and heavy spillage service: White Metal, SSPC SP 5 or NACE #1, minimum 3.0 mil profile. Heavy non-immersion service (i.e. fumes and spillage): Near white, SSPC SP 10 or NACE #2, minimum 2.0 mil profile. Atmospheric service: Commercial SSPC SP 6 or NACE #3, minimum 2.0 mil profile.

**Concrete:** Concrete must be prepared mechanically to remove surface laitance. Oils, grease or other contaminant must be removed prior to surface preparation. Concrete must be free of curing compounds and form release agents. Surface texture should be similar to 60-80 grit sandpaper or the visual standard, CSP-3 from the International Concrete Repair Institute.



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The prepared surface should have a nominal tensile strength of 250 psi per ASTM D-4541. All concrete substrates must be checked for moisture prior to product application using the Plastic Sheet Test, ASTM D-4263.

Additional surface preparation will be required if a 60-80 grit texture is not achieved and the surface laitance not completely removed with the first mechanical preparation procedure.

Mechanical preparation removes laitance, exposing honeycombs or voids beneath the surface which must be filled with **Scratch Coat 300**. (Refer to separate product bulletin)

**APPLICATION SPECIFICATIONS**

Substrate temperature for both concrete and metal must be between 50°F and 110°F.

Relative humidity must not exceed 90%.

Substrate temperature must be 5°F above the Dew Point.

**PRIMER 67/67C MIX RATIOS**

Primer 67 Component A	1 gallon
Primer 67 Component B	1 gallon
Primer 67C Component A	1 gallon.
Primer 67C Component B	35 fl. oz.

**Important: Primer 67C Component A** must be mechanically mixed for 1-2 minutes prior to adding the correct amount of **Component B**. **Primer 67C** must be roller applied. Use brush application for small touch-up or repair work only.

**PRIMER 67/ 67C POT LIFE**

TEMPERATURE	PRIMER 67	PRIMER 67C
50°F	90 min.	110 min.
75°F	60 min.	90 min.
90°F	30 min.	50 min.

**PRIMING**

**Metal:** Mix the pre-measured units of **Primer 67 Component A with Component B**. Prime all metal surfaces to be coated with **Primer 67** at 3-4 mils WFT.

**Concrete:** Mix the pre-measured units of **Component A with Component B**. Prime all concrete surfaces to be coated with either **Primer 67 or 67C** at 3-4 mils WFT. The coating may be applied over primer that is “tacky”. Do not allow the primer to puddle.

**Important:** With all epoxies after priming and before each additional coat, examine the surface for amine blush (oily film). If present, remove by washing with warm water and detergent.

**PROTECTO-COAT 300 IMPROVED MIX RATIO (BY VOLUME)**

Component A            2 parts  
 Component B            1 part

GPM Output:                    3.0 (min)  
 Material Hose:                1/2" I.D. (min)  
 Tip Size:                        .019"-.027"  
 Output PSI:                     3000-3500  
 Filter Size:                     30 mesh

**Protecto-Coat 300 Improved  
 Pot Life & Cure Time**

Temperature	Work Life	Cure Time	Recoat	
			Min.	Max.
50°F	75 min.	96 hrs.	16-18 hrs.	120 hrs.
75°F	50 min.	24 hrs.	10-12 hrs.	72 hrs.
90°F	25 min.	20 hrs.	6-8 hrs.	48hrs.

Before combining the correct ratios, mix Prior to adding the **Component B**, mechanically mix the **Protecto-Coat 300 Improved Component A** separately for 1-2 minutes to disperse any pigments or fillers which have settled.

Add the correct amount of **Component B** and mix until a uniform color is achieved. Spray apply the first coat evenly to 15-20 mils WFT.

Apply a second coat of **Protecto-Coat 300 Improved** after the first coat has cured tack free, (approximately 10 hours at 75° F).

Listed below are general spray equipment guidelines for the application of this product. Job site conditions may require modifications to these guidelines to achieve the desired results.

**SPRAY SPECIFICATION FOR 100% SOLIDS HIGH BUILD EQUIPMENT**

**\*This is a high solids viscous coating and may require adjustments in spray techniques to achieve the desired finish texture. The following spray equipment has been found suitable.**

Pump Ratio:                    45:1 (min)\*

**\*Teflon packings are recommended and available from the pump manufacturer.**

**Heated plural component spray equipment or thinning will aid in application of Protecto-Coat 300 Improved – Consult Dudick, Inc. for additional information.**

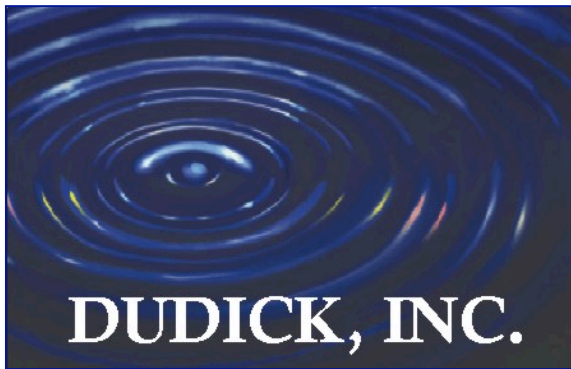
**Important** - With all epoxies after priming and before each additional coat, examine the surface for amine blush (oily film). If present, remove by washing with warm water and detergent.

The pot life of **Protecto-Coat 300 Improved** system components will depend upon the temperature. To prevent material waste and avoid damage to equipment, do not mix more material than can be used according to the Work Life & Cure Time charts.

Do not attempt to store mixed material. Residual material should be properly disposed of at the end of each work period.

Application of **Protecto-Coat 300 Improved** in direct sunlight may lead to blistering, pinholes, or wrinkling due to outgassing of air in the concrete and high substrate temperatures. Double priming, shading or evening application may be required. Consult a Dudick representative. **Protecto-Coat 300 Improved** system is intended for interior use only.

Do not attempt to store mixed material. Residual material should be properly disposed of at the end of each work period.



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### **SPRAY SPECIFICATION FOR THINNED PROTECTO-COAT 300 IMPROVED EQUIPMENT**

Same equipment as with 100% Solids except the tip size should range between 0.015 – 0.019 inch. For this application 2 to 3 ounces of xylene per gallon should be added.

Brush or roller application may require additional coats to meet the specified dry film thickness.

If these recoat times are exceeded, consult a Dudick representative; sanding or abrasive blasting may be required before the next coat.

Recoat times are dramatically reduced when the coating is exposed to direct sunlight.

Application of **Protecto-Coat 300 Improved** in direct sunlight may lead to blistering, pinholes, or wrinkling due to out-gassing of air in the concrete and high substrate temperatures. Double priming, shading, or evening application may be required. Consult a Dudick representative.

### **TESTING**

Where immersion service is required, spark test the coating with a 2000 volt AC spark tester. Mark and repair all pinholes using

**Protecto-Coat 300 Improved.** Retest only the repairs.

### **CLEANING**

Use **S-10 Cleaning Solvent** to clean tools and equipment.

### **SHIPPING**

Refer to Material Safety Data Sheets.

### **STORAGE**

**Warning:** All Dudick products classified by DOT with either white, yellow or red labels must not be mixed or stored together as an explosive reaction can occur.

All products should be stored in a cool, dry area, away from open flames, sparks, or other hazards.

When properly stored in their original, unopened containers at 50°F-75°F, the **Primers 67/67C** has a one year shelf life. **Protecto-Coat 300 Improved** has a six month shelf life. Storage in direct sunlight or excessive heat will reduce working time and shelf life.

### **SAFETY**

**M.S.D.S.: Material Safety Data Sheets must always be read before using products.** **Protecto-Coat 300 Improved** systems are intended for application by experienced, professional personnel. Dudick, Inc. can supply supervision to help determine that the surface has been properly prepared, the ingredients correctly mixed, and the materials properly and safely applied.

If **Protecto-Coat 300 Improved** materials are to be applied by your own personnel or by a third party contractor, please be sure that they are aware of the following safety precautions:

- Exposure to resins and hardeners through direct skin contact and/or inhalation may cause severe dermatitis reactions in some people.
- Cleanliness of the skin and clothing is critical and must be of paramount concern.
- Fumes are flammable and heavier than air. Proper ventilation should be maintained to minimize breathing of concentrated fumes.
- Suitable respirators should be used during application.
- Safety glasses, gloves, and suitable protective clothing must be worn at all times during application.
- If contact with hardeners occurs, remove any clothing involved and flush the skin with flowing water. Discard the clothing. Do not attempt to wash and reuse it. **Protecto-Coat 300 Improved** liquid can be removed with S-10 Cleaning Solvent, MEK, or lacquer thinner.
- Keep open flames and sparks away from the area where materials are being mixed and applied.
- If a rash occurs, remove the individual from the work area and seek a physician's care for dermatitis.
- In case of eye contact, flush with water for at least 15 minutes and consult a physician.
- If swallowed, do not induce vomiting; call a physician immediately.

**NOTE:** Dudick, Inc. ("Dudick") warrants all goods of its manufacture to be as represented in its catalogs and that the application of its products by its employees or sub-contractors shall be performed in a workmanlike manner. Dudick's obligation under this warranty shall be the repair to and replacement of any applications which its examination shall disclose to be defective. Dudick makes no warranty concerning the suitability of its product for application to any surface, it being understood that the goods have been selected and the application ordered by the purchaser. DUDICK, INC. MAKES NO WARRANTY, EXPRESS OR IMPLIED, THAT THE GOODS SHALL BE MERCHANTABLE OR THAT THE GOODS ARE FIT FOR ANY PARTICULAR PURPOSE. THE WARRANTY OF REPAIR OR REPLACEMENT SET FORTH HEREIN IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES ARISING BY LAW OR OTHERWISE; AND DUDICK, INC. SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOST PROFITS, DOWN TIME, DAMAGES TO PROPERTY OF THE PURCHASER OR OTHER PERSONS, OR DAMAGES FOR WHICH THE PURCHASER MAY BE LIABLE TO OTHER PERSONS, WHETHER OR NOT OCCASIONED BY DUDICK'S NEGLIGENCE. This warranty shall not be extended, altered or varied except by written instrument signed by Dudick and Purchaser.

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5/25/06