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Technical Bulletin

ARMORGARD STEEL COAT

Description:

Armorgard Steel Coat is a 100 % solids, self-leveling, room temperature cure form coating. It was formulated to provide a hard, tough coating for metal concrete forms used for precast, tilt-up, slip form or cast-in-place applications. Armorgard Steel Coat does not contain VOC's or butyl glycidyl ether (BGE)*.

Product

Advantages:

- EXTREMELY DURABLE SURFACE
- USER-FRIENDLY MIX RATIO
 - STRONG ADHESION TO PREPARED STEEL
 - SINGLE COAT APPLICATION

Application Guidelines:

Normal application thickness is 25-35 mil (0.64-0.89 mm). Application may vary depending on the porosity and roughness of the surface. **DO NOT APPLY MATERIAL BELOW THE MINIMUM APPLICATION THICKNESS OF 25 MILS!** See below Application section for more details.

Handling Properties:

MIX RATIO, pbv (pbw) COLOR	1/1 Light Amber	(1.2/1)	
MIXED VISCOSITY, cP or mPa.s	8,600		ASTM D 2196
WORKING TIME, min	25		
GEL TIME, min	33		ASTM D 2471
TACK-FREE TIME, h	5-6		
INITIAL CURE, h	9-12		
APPLICATION TEMPERATURE, °F (°C)			
Ideal	70-80	(21-27)	
COVERAGE* @ 25 mil (0.64 mm), ft²/gal *Varies with porosity of surface	63		

Physical Properties:

HARDNESS, Shore D 83 ASTM D 2240 MAXIMUM SERVICE TEMPERATURE, °F (°C) 135 (57)

Armorgard Steel Coat will soften when exposed to extreme precast temperatures. A temperature of no greater than 135 °F (57 °C) is recommended when removing forms coated with Armorgard Steel Coat.

^{*}Butyl Glycidyl Ether. The EPA (SARA Title III, section 312) lists it (BGE) as "Toxic" (per ANSI Z129.1) by skin absorption and an immediate health hazard.

Surface Preparation:

To achieve excellent adhesion, the substrate must be clean and free of all loose and foreign material. Oils, grease, waxes or other contaminates <u>must</u> be removed prior to coating. The surface should be prepared to a near white metal finish per standard NACE 2/SSPC-SP 10. Armorgard Steel Coat will not bond to a contaminated surface.

Mixing:

The storage temperature of Armorgard Steel Coat will greatly affect the ease of mixing, application and curing time. For best results, Armorgard Steel Coat should be stored at **(60-80 °F or 16-27 °C)** for at least 24 hours before use. Mix 1 part A (resin) to 1 part B (hardener) for 3 minutes using a Jiffy Mixer and a slow speed drill. Mix at slow speed (less than 500 rpm) to avoid air entrainment. When adding part B to part A, be sure to scrape the sides of the hardener (part B) container in order to remove all of the hardener. This is essential to maintain proper mix ratio. DO NOT mix more material than can be used within the stated working time. REMEMBER - you will have less working time at higher temperatures.

Application:

Armorgard Steel Coat should only be applied using a 9 pitch grooved metal roller (Contact Copps for details). Do not apply Armorgard Steel Coat with the grooved metal roller used for Armorgard 505 as this roller will not apply the material to the proper minimum application thickness (25 mils). Applying the Armorgard Steel Coat below the minimum application thickness will result in an unsatisfactory surface.

SAFETY PRECAUTIONS

Mix and pour in a well-ventilated area. Avoid contact with skin and eyes. If contact does occur, wash skin with soap and water and seek medical help. Read and understand all CAUTIONS on container labels and safety data sheets before using this material.

Avoid breathing of vapors. Forced local exhaust is recommended to effectively minimize exposure. NIOSH approved, organic vapor respirators and forced exhaust are recommended in confined areas, or when conditions (such as heated polymers, sanding) may cause high vapor concentrations. **DO NOT WELD ON, BURN OR TORCH ON OR NEAR, ANY EPOXY MATERIAL. HAZARDOUS VAPOR IS RELEASED WHEN AN EPOXY IS BURNED.**

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