



An ISO 9001 Certified Company

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ARMORGARD 505

FORM COATING

**EXTREMELY TOUGH SURFACE
 SINGLE COAT APPLICATION
 ADHESION TO WOOD, CONCRETE, STEEL**

**REDUCES FORM PREP TIME
 STYRENE FREE
 BONDS TO DAMP CONCRETE**

PRODUCT GENERAL INFORMATION

Armorgard 505 is a 100 % solids, self-leveling, primerless, odorless epoxy form coating for precast, tilt-up, slip form or cast-in-place applications. Armorgard 505 is formulated to provide a hard, tough coating for wood and metal concrete forms. Use of Armorgard 505 transforms a "rough" form into a hard, smooth surface, creating an "architectural" quality cast. Armorgard 505 does not contain VOC's or butyl glycidyl ether (BGE)*.

Armorgard 505 can be easily applied with a squeegee or roller. Normal application thickness is 20-30 mil (0.50-0.76 mm). Application varies depending on the porosity and roughness of the surface. A single build may be applied to horizontal surfaces up to 1/8" thick (125 mil or 0.3 cm).

HANDLING PROPERTIES @ 77 °F (25 °C)

COMPONENTS	Resin, Hardener	
WEIGHT PER GALLON (MIXED)	9.08	
DENSITY (MIXED) kg/l	1.04	
MIX RATIO, pbv (pbw)	2/1 (100/44.6)	
COLOR	Clear	
MIXED VISCOSITY, cP or mPa.s	600	ASTM D 2196
WORKING TIME, min	25	ASTM D 2393
GEL TIME, min	30	ASTM D 2471
(See the chart on the next page)		
TACK-FREE TIME, h	5-6	
INITIAL CURE, h	9-12	
APPLICATION TEMPERATURE, °F (°C)		
Ideal	70-80 (21-27)	
Acceptable	55-90 (13-32)	
COVERAGE* @ 20 mil (0.50 mm), ft ² /gal	80	
*Varies with porosity of surface		

Armorgard 505 will soften when exposed to extreme precast temperatures. A temperature of no greater than 135 °F (87 °C) is recommended when removing forms coated with Armorgard 505.

TYPICAL CHARACTERISTICS

HARDNESS, Shore D	82	ASTM D 2240
MAXIMUM SERVICE TEMPERATURE, °F (°C)	135 (57)	
ADHESION, psi (MPa)		
to steel	2,300 (15.9)	
to wood	> 300 (2.1) (100% failure in wood)	
to concrete	> 800 (5.5) (100% failure in concrete)	
COMPRESSIVE STRENGTH, psi (MPa)	12,000 (82.8)	ASTM D 695
TENSILE STRENGTH, psi (MPa)	6,100 (42.1)	ASTM D 638
ELONGATION @ BREAK, %	6	ASTM D 638

*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 free of all loose and foreign material and should be clean. Oils, grease, waxes or other contaminants must be removed prior to coating. These can be removed with a solvent wipe using isopropyl alcohol or acetone or an application of warm (120-140 °F) caustic detergent followed by a hot water rinse. Repeat this procedure until the water does not "bead up" on the form. Armorgard 505/505LT will not bond to a contaminated surface.

HUMIDITY/DEW POINT

Relative humidity and dew point must be determined before application to avoid adhesion failures. The dew point is used to predict the substrate temperature at which air begins to condense, in the form of water, on the substrate. Never apply a coating unless the form surface temperature is 5 °F(2.5 °C) above the dew point. This temperature difference must be observed until the epoxy coating is cured to a tack-free state. A dew point calculation chart is available from a Copps Technical Representative.

MIXING

The storage temperature of Armorgard 505/505LT will greatly effect the ease of mixing, application and curing time. For best results, Armorgard should be stored at (50-70 °F or 10-22 °C) for at least 24 hours before use. Mix 2 parts 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 850 rpm) to avoid air entrainment. DO NOT mix more material than can be used within the stated working time. REMEMBER - you will have less working time at higher temperatures.

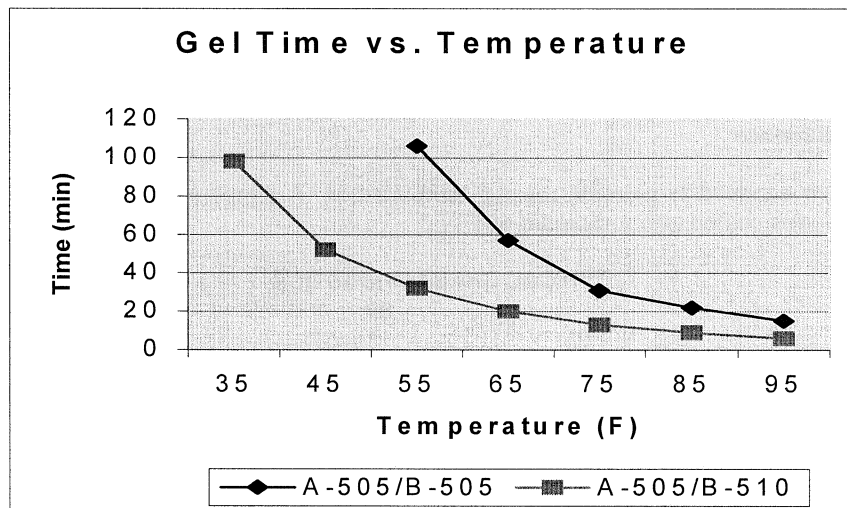
APPLICATION

505/505LT can be applied with a squeegee, brush, non-shedding roller or a grooved fiberglass roller. Re-coating a used form requires a light sanding to remove concrete residue and improve surface profile and adhesion. DO NOT "OVERWORK" MATERIAL.

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 material 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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