

# ARM591X

## ARMORULTRA HIGH BUILD WET EPOXY

### PRODUCT DESCRIPTION

ARM591X is a two-component Cycloaliphatic Epoxy Coating boasting 100% solids. This advanced formulation offers exceptional impact and abrasion resistance while maintaining very low permeability. Formulated with a unique moisture-insensitive polymer, ARM591X exhibits remarkable versatility, allowing application **on wet surfaces or even underwater** without compromising its curing process. Its special resin modification results in a flexible, low modulus film, making it perfect for painting over existing sound paint without risk of "lifting". ARM591X is recommended for use on both steel and concrete surfaces. ARM591X is a lower viscosity alternative to PC-590, enabling easy rolling application without the need for solvents.

### CHEMICAL AND PHYSICAL ANALYSIS

SHELF LIFE	12 MONTHS
MIX RATIO	3 PARTS A:1 PART B
POT LIFE	40-50 MINUTES @75°F
SOLIDS BY VOLUME	100%
PACKAGING	1 GAL KIT
COLORS	LIGHT GRAY AND MEDIUM GRAY
RECOMMENDED THICKNESS	2X COATS AT 8-20 MILS
COVERAGE	80-200 SF PER GALLON
CURE SCHEDULE	-
TACK FREE	1-12 HOURS
RECOAT TIME	6-48 HOURS
FULL CURE	5-7 DAYS
FINISH	GLOSS
APPLICATION	ROLL OR BRUSH
APPLICATION TEMPERATURE	40°F TO 120°F
THINNING	NONE REQUIRED
VOC	0 G/L

CURE SCHEDULE TIMES ARE APPROXIMATE AND WILL BE AFFECTED BY TEMPERATURE CONDITIONS AND RELATIVE HUMIDITY

\* Gloss will exhibit slight variation in brush or rolled film due to orientation of fillers. This does not affect product performance.

### ADVANTAGES



Can be applied direct to steel



Can be applied to wet or underwater applications



Impact Resistant



2-Part Product



High Film Build



Zero VOCs

### FEATURES

- Self-priming on steel and on most concrete applications
- Can be rolled with no solvent
- Ideal for marginally prepared surface
- Outstanding impact and abrasion
- High film build - 20 mil DFT per coat on horizontal surfaces
- Excellent coating for manholes
- May be applied on wet or under water surfaces
- Meets all EPA and other air pollution regulations
- Cures down to 35°F
- Available in an Antimicrobial formula

### COMPOSITION

Two component Cycloaliphatic Epoxy Coating

### PACKAGING

Sold in 1 Gal Kits

### Chemical Reistance

- Acetic Acid, 5%
- Hydrochloric Acid, 32%
- Ammonium Hydroxide, 10%
- Hydrogen Peroxide, 5%
- Aqueous Salt Solutions
- Hydrogen Sulfide
- Black Liquor
- Jet Fuel
- Brine
- Lactic Acid
- Crude Oil
- Sodium Hypochlorite, 5%
- Distilled Water
- Sodium Hydroxide, 50%
- Fresh & Salt Water
- Sulfuric Acid, 50%
- Gasoline
- Xylene

### CAUTION

PC-591 Base is combustible. Keep away from all sources of ignition during mixing, application and cure. PC-591 Hardener (Part B) is corrosive and can cause eye and skin irritation as well as allergic reactions. The use of goggles, fresh air masks or NIOSH approved respirators, protective skin cream and protective clothing is a recommended standard practice when spraying coatings. Proper ventilation is always required. This product is sold without warranty as to performance expressed or implied. Users are urged to make their own tests to determine the suitability for their particular conditions.



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**PLEASE READ INSTRUCTIONS THOROUGHLY BEFORE APPLICATION BEGINS.**

**PRODUCT USES**

ARM591X IS A CHEMICAL RESISTANCE EPOXY COATING IDEAL FOR USE IN PAPER AND PULP MILLS, CHEMICAL PROCESSES, WASTE WATER TREATMENT FACILITIES, FERTILIZER PLANTS, ELECTRIC GENERATING STATIONS, ORE RECOVERY FACILITIES, MINING SITES, REFINERIES, DAIRIES, LAUNDRIES, DAMS, MARINE ENVIRONMENTS SUCH AS PILINGS, SUBMARINE PENS, WET ENDS OF PAPER MACHINES, BLEACH PLANTS, MANHOLES, PITS, SUMPS, COOLING TOWERS, CLARIFIERS, PIERS, UNDERWATER APPLICATIONS, ETC., AND ALL KINDS OF WET PROCESSES.

IDEAL FOR UPGRADING THE PERFORMANCE OF EXISTING "OLD PAINT" SURFACES, AND FOR REMEDIAL PAINTING OF "LESS-THAN-IDEAL" SURFACE PREPARATIONS OR CONDITIONS DURING APPLICATION. INCLEMENT WEATHER WILL SELDOM INTERFERE WITH PAINT SCHEDULES. WHEN MIXED WITH A BLEND OF SILICA FLOUR AND SAND, ARM591X MAY BE USED TO REPAIR UNDERWATER, OR BELOW GRADE LEAKS IN STEEL OR CONCRETE STRUCTURES.

PERFECT FOR USE IN CONJUNCTION WITH WET ABRASIVE OR HIGH PRESSURE WATER BLAST PREPARATION. ARM591X MAY BE APPLIED WITHOUT WAITING FOR THE SURFACE TO DRY, THEREFORE, ELIMINATION "FALL OUT" CONTAMINATION.

**SURFACE PREPARATION**

BEST METHOD IS A NEAR WHITE ABRASIVE BLAST (SSPC-SP10) BUT ARM591X WILL PERFORM WELL OVER MINIMALLY PREPARED SURFACES DEPENDING ON SERVICE REQUIREMENTS. BECAUSE OF THE LACK OF "STANDARDS" FOR MINIMAL SURFACE PREPARATION, TEST APPLICATIONS SHOULD BE MADE TO DETERMINE ADEQUATE SURFACE CLEANLINESS AND COMPATIBILITY WITH EXISTING PAINT.

- STEEL: REMOVE OIL, GREASE AND OTHER CHEMICAL CONTAMINANTS BY SOLVENT WIPE OR STEAM CLEANING. ABRASIVE BLAST TO A "COMMERCIAL" (SSPC-SP6) OR "NEAR WHITE" (SSPC-SP10) METAL FINISH.
- GALVANIZED STEEL/ALUMINUM: SOLVENT CLEAN PER SSPC-SP1 OR STEAM CLEAN. SWEEP BLAST TO ACHIEVE A MINIMUM 1 MIL PROFILE.
- PREVIOUSLY PAINTED SURFACES: SOLVENT CLEAN PER SSPC-SP1 AND/OR POWER WASH. REMOVE LOOSE EXISTING PAINT BY WIRE BRUSH OR OTHER HAND TOOLS. FEATHER EDGES. MAKE TEST APPLICATION TO CHECK FOR COMPATIBILITY.
- CONCRETE: ALL NEW CONCRETE MUST BE CURED AT LEAST 28 DAYS. FOR ON-GRADE CONCRETE SLABS, CHECK THAT A MOISTURE BARRIER FILM HAS BEEN USED. TESTING MAY BE NECESSARY. CHECK FOR THE PRESENCE OF HARDENERS OR RESIDUAL FORMING MEMBRANE CURING AGENTS. REPAIR ALL CRACKS, BUG HOLES, SPALLED CONCRETE, VOIDS AND EXPANSION JOINTS.

**MIXING INSTRUCTIONS**

STIR EACH COMPONENT TO A UNIFORM CONSISTENCY WITH AN EXPLOSION PROOF VARIABLE SPEED DRILL WITH JIFFY MIXER. THEN MIX 3 PARTS BASE A WITH 1 PART HARDENER B FOR 3 MINUTES. ARM591X MAY BE REDUCED UP TO 20% WITH S-74 REDUCER PER MIXED GALLON. DO NOT SUBSTITUTE REDUCERS.

**APPLICATION PROCEDURE**

WHEN SPRAYING, USE A 50% OVERLAPPING CROSSHATCH PATTERN TO MINIMIZE THE OCCURRENCE OF PINHOLES. DO NOT APPLY TO SURFACES BELOW 40°F OR ABOVE 120°F. DO NOT APPLY OVER DEW OR FROST. THE SURFACE TEMPERATURE SHOULD BE AT LEAST 5° ABOVE THE DEW POINT.

- ROLLER - USE A MEDIUM NAP SOLVENT RESISTANT PHENOLIC CORE ROLLER OR NAP SHED RESISTANT ROLLER
- BRUSH - USE A PURE BRISTLE BRUSH

**CURE TIMES**

TEMPERATURE	TACK FREE	MIN RECOAT	MAX RECOAT
90°F	1-2 Hours	5-6 Hours	3 Days
75°F	3-4 Hours	7-8 Hours	7 Days
45°F	8-12 Hours	36-48 Hours	10 Days

**SEE SAFETY DATA SHEET FOR FULL SAFETY PRECAUTIONS.**  
**FOR PROFESSIONAL AND INDUSTRIAL USE ONLY**  
**KEEP AWAY FROM CHILDREN.**