



## Endcor® 4600C Series Modified Polyester Urethane Coating

### Description

Endcor 4600C series coating is a two component, semi-gloss high-performance coating based on a chemically cross-linked polyurethane polymer. Endcor 4600C exhibits outstanding toughness, durability, chemical and weather resistance with increased gloss and color retention as compared to acrylic urethanes.

Endcor 4600C provides an attractive appearance for metal and concrete surfaces exposed to corrosive chemical, industrial and marine environments.

### Recommended Uses

- Process equipment and piping
- Storage tank exteriors
- Structural steel and concrete
- Marine and off-shore structures
- Transportation equipment
- OEM/Product finishing
- Material handling equipment

### Features

- Chemical resistant finish
- Excellent weathering resistance
- High performance finish for use in tropical and salt air environments
- Outstanding durability and appearance under demanding service conditions
- Impact and abrasion resistant
- Excellent gloss and color retention
- Smooth hard tile-like surface resists staining and dirt pick-up

### Not Recommended For

- Exposure to strong solvents - aromatic, chlorinated, ketone, ester
- Exposure to acetic acid and oxidizing acids
- Immersion service

### Chemical Resistance

When applied over suitable primers or intermediate coats, Endcor 4600C series polyester-urethane coating provides excellent resistance to salt spray and a wide range of chemicals including inorganic acids, alkalis, salt solutions, fresh, salt, and waste water. Resistance

to gasoline and other fuels and lubricants is excellent. Solvent resistance is good.

### Primer Required

Can be applied over properly primed concrete, ferrous and non-ferrous metal substrates. Depending upon type of exposure and service conditions suitable primers include Endcor 4934C Aluminum Urethane, Endcor 700 and 750C Epoxy, Protexior 795, Endcor 835 and ThurmaloX 837 Hybrid Inorganic Zinc. Consult Dampney for specific recommendations. Galvanized and aluminum surfaces must be pretreated with Endcor 400 Wash Primer. Concrete surfaces must first be sealed with Endcor 750C epoxy-polyamide or Endcor 793 100% solids epoxy primer.

### Surface Preparation

Follow surface preparation directions in Dampney primer bulletins. Endcor 4600C is designed as a finish coat for suitably primed surfaces.

### Mixing

Before opening containers and mixing Base and Activator components, note pot life limitations listed below. Endcor 4600 is a two component system consisting of a base component and activator that are mixed together before use. The mix ratio is 5:1 for all colors except aluminum which is 6:1. Mix components separately, then combine and mix thoroughly with power agitator before use.

**IMPORTANT:** Activator is extremely moisture sensitive. Only open containers just before mixing with base component. Keep containers tightly closed during storage. Cover paint pot after mixing and keep covered during application to prevent overexposure to atmospheric moisture, particularly in conditions of high humidity. Do not mix more than can be used during pot life period.

### Application Guidelines

Apply by either conventional or airless spray, brush, or roller. Coating has excellent flow out and leveling properties.

Apply only over clean, dry recommended primers, seal coats, intermediate coats, or previously painted surfaces.

## Application Equipment

*Brush:* Do not use plastic or nylon bristle brushes.

*Roller:* Solvent resistant type ¼"-3/8" (6-9 mm) nap with phenolic core. Keep roller thoroughly saturated to obtain correct film thickness and avoid pulling. Do not squeegee or apply excessive pressure.

### Conventional Spray:

Spray Gun	DeVilbiss JGA-402 or equal
Fluid Tip	AV-1115-FX(.0425")
Needle	JGA-401-FX(.0425")
Air Cap	770 (AV-1239-770)
Air Hose*	3/8" I.D.
Pot Pressure	15-25 psi
Atomizing Pressure	35-50 psi

\*Small hose diameter or length over 25 ft. may require increased pressure.

### Airless Spray:

Spray Gun	Graco 205-591, 208-663
Fluid Tips*	163-614, 163-616 (12" fan)
Pump	Graco Bulldog 30:1 (minimum)
Fluid Hose	3/8" I.D.
Air Pressure to Pump	65-80 psi
Total Pressure	2400 psi

\*Use Reverse-A-Clean® tips for easy clean out.

## Thinning

Thin only with Dampney 162 Thinner. Substitute solvents may contain traces of water which will cause bubbling and rapid gellation of polyurethane coatings, or alcohols which will inhibit curing.

*Conventional Spray, Brush or Roller:* If required, use up to 1 pint maximum of Dampney 162 Thinner per gallon.

*Airless Spray:* Thinning is not usually required. If atomizing difficulty is required reduce viscosity by addition of up to 1/2 pint of Dampney 162 Thinner per gallon.

## Drying Time

Coating will set up dry-to-touch in 12 hours at 70°F (21°C) and will dry hard in 24 hours.

## Recoat Time

Surface must be clean and dry at time of recoating. Allow 12 hours minimum drying time between coats of Endcor 4600C at 70°F (21°C), 8 hours at 90°F (32°C). Recoat within 24 hours maximum at 70°F (21°C).

Recoat primers in accordance with time limitations stated in applicable primer products bulletin.

## Bulletin 4600C

## Pot Life

Pot life is 2 hours at 77°F (25°C) and 50% relative humidity. Pot life varies with temperature and humidity and decreases as temperature and humidity increase. For limitations see Technical Data section. Do not apply to primer that has aged beyond recommended time limits.

## Storage

Store in a cool, dry place with temperature no lower than 50°F (10°C) or higher than 90°F (32°C).

## Cleanup

Thoroughly flush spray equipment and hoses immediately after use with Dampney 162 Thinner. Dismantle spray equipment and clean dismantled parts, brushes, and rollers with Dampney 162 Thinner. Other approved cleanup solvents include MEK, MIBK, Xylene or Toluene.

Shipping Weights	1's	5's
Endcor 4600C Series	10-11 lbs.	51-54 lbs
Dampney 162 Thinner	9 lbs	43 lbs

## Precautionary Information

### WARNING: Flammable Liquid and Vapor

Keep away from heat, sparks and flame. Vapors may cause flash fire. Do not breathe vapors or spray mist. Avoid contact with eyes, skin and clothing. Use with adequate ventilation during mixing and application. Wear an appropriate, properly fitted organic vapor cartridge-type respirator (NIOSH approved) during and after application unless air monitoring demonstrates vapor/mist levels are below applicable limits. Follow respirator manufacturer's directions for respirator use. Wash thoroughly after handling. Wear protective gloves, chemical safety goggles and impervious protective clothing. Use skin cream. In confined spaces it is required to use a positive pressure supplied-air respirator (NIOSH approved). Use explosion-proof lights and electrical equipment. Use only nonsparking tools and equipment. Wear conductive and nonsparking footwear. Make certain all electrical equipment is grounded. Observe all safety precautions and follow procedures described in OSHA regulations. See Material Safety Data Sheet (MSDS) for complete precautionary and disposal information.

**See Material Safety Data Sheet (MSDS) for complete precautionary and disposal information.** If instructions and warnings cannot be strictly followed, do not use this product.

## FOR INDUSTRIAL USE ONLY

TECHNICAL DATA

Characteristics	Endcor 4600C Series		
Generic Type	Modified Polyester Urethane		
Colors	Standard and Custom, Aluminum and Clear		
Finish	Gloss (60° 90-95)		
Number of components	Two		
Mix Ratio	Colors 5:1 Note: Aluminum is 6:1		
% Solids by volume	62 (mixed components)		
Weight per US Gallon (3.78 liter)	11 lbs. (4.98 kg)(mixed components) varies with color		
Viscosity (Brookfield) #5 Spindle, 75°F (25°C)	Part A: 70-75 KU Part B: 65-73 KU		
Temperature resistance			
Continuous	250°F(121°C)		
Intermittent	275°F(135°C)		
Dry film thickness per coat	1.5-3.0 mils (37-75 microns)		
Wet film thickness per coat	2.5-5.0 mils(63.5-127 microns)		
Theoretical coverage per gallon*	994 sq ft/gal @ 1.0 mil (24.35 m/liter @ 25 microns)		
Application temperatures			
Ambient Air	<b>Normal</b>	<b>Minimum</b>	<b>Maximum</b>
Substrate	60-90°F (16-32°C)	40°F(4°C)	120°F(49°C)
Coatings material	65-85°F (18-29°C)	40°F(4°C)	120°F(49°C)
Humidity	65-85°F( 18-29°C)	50°F(10°C)	80°F(27°C)
Drying Time	30-80%	10%	90%
To touch/recoat (minimum)	<b>At 50°F(10°C)</b>	<b>at 70°F(21°C)</b>	<b>at 90°F(32°C)</b>
To recoat (maximum)	16 Hours	12 Hours	8 Hours
To handle	24 Hours	24 Hours	24 Hours
	28 Hours	24 Hours	20 Hours
Pot life	4 hours	2 hours	1 hour
Flash Point (Pensky-Martens)	83°F(28°C)		
VOC	2.7 lbs/gal (324 g/l)		
Shelf Life	1 year(unmixed components)		

\*Note: Actual coverage rate will vary depending upon material losses during mixing and application, and upon type and condition of surface to be coated. Allowances must be made for losses when estimating material requirements. See Bulletin 3110 "Calculating Coating Requirement" for additional information.

**Warranty**

Dampney protective coating products are expressly warranted to meet applicable technical and quality specifications. The technical data contained herein are accurate at the date of issuance but are subject to change without prior notice. No warranty of current accuracy is hereby given or implied. User must contact Dampney to verify correctness before ordering. Dampney assumes no responsibility for coverage, performance or injuries resulting from storage, handling or use and **LIABILITY, IF ANY, SHALL BE LIMITED TO PRODUCT REPLACEMENT.** In no event will Dampney be responsible for consequential damages except insofar as liability is mandated by law. Dampney **DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.**