

TIDEGUARD™ 171 A

DESCRIPTION

Sprayable epoxy cladding

PRINCIPAL CHARACTERISTICS

- Solvent-free
- Long lasting economical splash zone coating
- Reinforced film withstands heavy abrasion and impact
- Outstanding resistance to well designed cathodic protection
- Can be exposed to still water immediately after application

COLOR AND GLOSS LEVEL

- Gray

BASIC DATA AT 68°F (20°C)

Data for mixed product	
Number of components	Three
Volume solids	100%
VOC (Supplied)	max. 0.0 lb/US gal (approx. 4 g/l)
Recommended dry film thickness	125.0 - 250.0 mils (3125 - 6250 µm) depending on system
Theoretical spreading rate	8 ft ² /US gal for 196.9 mils (0.2 m ² /l for 5000 µm)
Shelf life	Base: at least 24 months when stored cool and dry Hardener: at least 24 months when stored cool and dry Powder: at least 24 months when stored cool and dry

Notes:

- Each kit contains 3.3 US gallons
- See ADDITIONAL DATA - Overcoating intervals
- See ADDITIONAL DATA - Curing time

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Steel

- Remove weld spatter, protrusions, and laminations in steel. Grind welds smooth in accordance with NACE RP-0178
- Remove all surface contaminants, oil and grease in accordance with SSPC SP-1
- Abrasive blast with an angular abrasive to an SSPC SP-10 cleanliness or higher. Achieve a surface profile of 3.0 - 4.0 mils (75 - 100 µm)



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Substrate temperature and application conditions

- Surface temperature during application should be between 50°F (10°C) and 100°F (38°C)
 - Surface temperature during application should be at least 5°F (3°C) above dew point
 - Ambient temperature during application and curing should be between 60°F (16°C) and 90°F (32°C)
 - Relative humidity during application should be above 0% and below 85%
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INSTRUCTIONS FOR USE

Mix thoroughly before application

- Mix full units as packaged only. Mix with a heavy duty mud mixer with a 1/2" shaft and suitable power drill.
 - Pre-mix base component with a pneumatic air mixer at moderate speeds to homogenize the container. Add hardener to base and agitate with a power mixer for 1–2 minutes until completely dispersed. Slowly add powder under moderate agitation in a vortex
 - Ensure powder component is fully incorporated with good off-bottom mixing. Do not over-mix. Be prepared to apply the product quickly, due to a short pot life for this product. No induction time is required
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Pot life

40 minutes at 70°F (21°C)

Note: See ADDITIONAL DATA – Pot life



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Application

- Area should be sheltered from airborne particulates and pollutants
- Avoid combustion gases or other sources of carbon dioxide that may promote amine blush.
- Ensure good ventilation during application and curing
- Provide shelter to prevent wind from affecting spray patterns
- Bulletin #1489 for further information on prevention, detection, and removal of amine blush
- Mix a unit of resin and cure for lubricating the material line (do not add powder)
- Pump lubricant material through the pump and delivery hose, collecting the material in a 5-gallon can. Continue pumping until all lubricant (resin and cure) is removed from the material, follow lubricant material with a mixed unit of resin, cure, and powder. Begin application of the 3-component material
- Spray in even, parallel passes. Overlap each pass 50% to avoid areas of low film thickness. Cross spray at right angles to first pass until the specified thickness is achieved
- Periodically check wet film thickness during application with a steel rule depth gauge or other suitable wet film thickness gauge
- At surface temperatures of 80°F or higher, two coats of TIDEGUARD 171A may be required to achieve a 3/16" film on vertical surfaces. Make the first application at 1/8". Allow to cure overnight. Make a second application at 1/16" within 24 hours of the initial application
- For low temperature applications, it will be necessary to add Amercoat 861 accelerator to a mixed kit of TIDEGUARD 171A, at 56°F(13°) - 70°F(21°C) add 1/4 pint AMERCOAT 861; at 40°F(4°) - 55°F(12°C) at 1 pint AMERCOAT 861
- When a pinhole-free coating is required, check continuity of dry, but uncured coating with a nondestructive holiday detector such as a Tinker-Razor Model AP at approximately 15,000 volts. Select the proper voltage depending on the thickness and condition of the surface as per NACE SP-0188
- Immediately after use, clean all application tools and spray equipment with AMERCOAT 104 Cleaner followed by a clean water. Clean pump by pouring a unit of AMERCOAT 104 Cleaner following 171A and run until 171A is removed from the material line. Pour a second unit of AMERCOAT 104 Cleaner into the hopper and continue circulating to remove any remaining 171A. Follow with a clean water rinse. For thorough cleaning of the material line, disassemble and clean by attaching a rag to a piece of wire and pulling the rag through the line several times to remove any deposits from the side walls. Flush with water. A spare material line is recommended so one line can be thoroughly cleaned while the other is in use. It also allows for close inspection of the lines for wear
- TIDEGUARD may receive water contact immediately after application; however, the wet coating should be protected from splashing action which could remove the film while it is still wet

Material temperature

Material temperature during application should be between 60°F (16°C) and 80°F (27°C)

Recommended thinner

No thinner should be added



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Airless spray

- Use only these equipment types listed below:
- [1] Swinger pump by AirTech with 1" fluid hose to pump outlet affixed with a pole gun with external atomizing air. 1/2" air hose to air manifold below the air regulator.
- [2] Quikspray® Carrousel pump equipped with a hopper feed, spray gun and material lines can also be used
- [3] Bottom fed pressure pot outfitted with a pole gun such as a Binks 10-gallon pressure pot, Model No. 83-5362, with follower plate and air control 83-104, fluid hose 71-3362-1 inch, pole gun model 125
- [4] Super Texan® hopper feed grout/mortar sprayer with a pole gun can be used. Select a variable speed air motor
- [5] GRACO® M680 Mortar pump equipped with hopper feed, applicator and fluid hoses
- [6] For small or repair areas, use a hand held hopper gun such as a Quikspray Model 60AT. The product can also be trowel applied for small areas

Cleaning solvent

AMERCOAT 104 Water based cleaner

ADDITIONAL DATA

Overcoating interval for DFT up to 187.5 mils (4763 µm)				
Overcoating with...	Interval	50°F (10°C)	70°F (21°C)	90°F (32°C)
itself	Minimum	Not recommended	10 hours	5 hours
	Maximum	Not recommended	3 days	36 hours
AMERCOAT 861 Accelerator	Minimum	24 hours	8 hours	Not recommended
	Maximum	5 days	48 hours	Not recommended

Notes:

- Dry times are dependent on air and surface temperatures as well as film thickness, ventilation, and relative humidity. Maximum recoating time is highly dependent upon actual surface temperatures – not simply air temperatures. Surface temperatures should be monitored, especially with sun-exposed or otherwise heated surfaces. Higher surface temperatures shorten the maximum recoat window
- Surface must be clean and dry. Any contamination must be identified and removed. Particular attention must be paid to surfaces exposed to sunlight where chalking may be present. In those situations, a further degree of cleaning may be required. PPG Technical Service can advise on suitable cleaning methods. If maximum recoat/topcoat time is exceeded, then roughen surface

Curing time for Tideguard 171A		
Substrate temperature	Dry hard	Dry to service
50°F (10°C)	Not recommended	Not recommended
70°F (21°C)	10 hours	3 days
90°F (32°C)	5 hours	48 hours

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Curing time with Amercoat 861 Accelerator

Substrate temperature	Dry to touch	Dry hard
50°F (10°C)	24 hours	10 days
70°F (21°C)	8 hours	3 days
90°F (32°C)	Not recommended	Not recommended

Pot life (at application viscosity)

Mixed product temperature	Pot life
50°F (10°C)	N/A
70°F (21°C)	40 minutes
90°F (32°C)	20 minutes

Pot life (at application viscosity) with AMERCOAT 861 accelerator

Mixed product temperature	Pot life
50°F (10°C)	1 hour
70°F (21°C)	30 minutes
90°F (32°C)	Not recommended

SAFETY PRECAUTIONS

- For paint and recommended thinners see INFORMATION SHEETS 1430, 1431 and relevant Material Safety Data Sheets
- This is a solvent-borne paint and care should be taken to avoid inhalation of spray mist or vapor, as well as contact between the wet paint and exposed skin or eyes

WORLDWIDE AVAILABILITY

It is always the aim of PPG Protective and Marine Coatings to supply the same product on a worldwide basis. However, slight modification of the product is sometimes necessary to comply with local or national rules/circumstances. Under these circumstances an alternative product data sheet is used.

REFERENCES

• CONVERSION TABLES	INFORMATION SHEET	1410
• EXPLANATION TO PRODUCT DATA SHEETS	INFORMATION SHEET	1411
• SAFETY INDICATIONS	INFORMATION SHEET	1430
• SAFETY IN CONFINED SPACES AND HEALTH SAFETY, EXPLOSION HAZARD - TOXIC HAZARD	INFORMATION SHEET	1431



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WARRANTY

PPG warrants (i) its title to the product, (ii) that the quality of the product conforms to PPG's specifications for such product in effect at the time of manufacture and (iii) that the product shall be delivered free of the rightful claim of any third person for infringement of any U.S. patent covering the product. THESE ARE THE ONLY WARRANTIES THAT PPG MAKES AND ALL OTHER EXPRESS OR IMPLIED WARRANTIES, UNDER STATUTE OR ARISING OTHERWISE IN LAW, FROM A COURSE OF DEALING OR USAGE OF TRADE, INCLUDING WITHOUT LIMITATION, ANY OTHER WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR USE, ARE DISCLAIMED BY PPG. Any claim under this warranty must be made by Buyer to PPG in writing within five (5) days of Buyer's discovery of the claimed defect, but in no event later than the expiration of the applicable shelf life of the product, or one year from the date of the delivery of the product to the Buyer, whichever is earlier. Buyer's failure to notify PPG of such non-conformance as required herein shall bar Buyer from recovery under this warranty.

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53.8 lb unit (3 components, 3.3 gallons)

Product code	Description
Base	8.7 lbs in a 5- gallon can
Hardener	5.1 lbs in a 1-gallon can
Powder	40 lbs in a 3-gallon container
NU171-2	Gray Base
NU171-B	Hardener
NU171-P	Powder

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