



Amercoat 68E

High-Zinc Content Epoxy Primer

Product Data/ Application Instructions

- Contains minimum 85% zinc content by weight in the dry film
- Combines epoxy's toughness with zinc's superior protection
- Outstanding resistance to severe weathering
- Superior performance in industrial and marine environments
- Easily applied by airless or conventional spray

Typical Uses

In combination with suitable topcoat systems, Amercoat 68E can be used for the following applications:

INDUSTRIAL - structural steel, machinery pipes, and tank exteriors in paper mills oil refineries, power plants, chemical process and waste treatment plants.
MARINE - Decks, hulls, and superstructures of ships, barges and workboats. On piers, offshore platforms and related structures.

Outstanding Characteristics

Amercoat 68E is a two component zinc rich epoxy primer with high metallic zinc content. The zinc content provides cathodic protection and high resistance to undercutting even if the film is damaged. Applied as part of a coating system Amercoat 68E provides superior performance in a wide range of highly corrosive environments. With suitable topcoats it withstands splash or spillage of water, solvent, chemicals and petroleum products.

Qualifications

Complies with the compositional requirements for SSPC Paint 20, ISO 12944 part 5, BS 4652 and BS5493.

Amercoat 68E also complies with compositional requirements from major oil companies such as Total/Elf/Fina, ADMA/OPCO and Aramco APCS 1C & 1F and with Deutschebahn specification DB-TL 918300 Blatt 87.

Physical Data

Finish	matt	
Colour	reddish grey	
Components	2	
Mixing ratio (by volume)		
resin	4 parts	
cure	1 part	
Curing mechanism	solvent release and reaction between components	
Volume solids	57% (ISO 3233)*	
VOC**		
EC SED 1999/13/EC	148 g/kg (410 g/l)	
UK PG6/23(92) Appendix 3	363 g/l (3.0 lbs/gal)	
Dry film thickness	50 - 75 µm (2-3 mils) per coat	
Number of coats	1	
Calculated coverage	7.6 m ² /l (at 75 µm)	
	309,6 ft ² /gal (at 3 mils)	
Allow for application losses, surface irregularities, etc.		
Specific gravity	2.8 kg/l (mixed product)	
Temperature resistance	205°C (400°F) dry heat	
Flash points (Closed Cup).....	°C	°F
resin	23	73
cure	18	64
Thinner 91-83	26	79
Thinner/cleaner	Thinner 91-83	

* Volume solids is measured in accordance with ISO 3233 modified. Slight variations ± 3% may occur due to colour and testing variances.

** VOC figures are quoted according to both the EC directive 1999/13/EC which are theoretically calculated figures and the UK PG6/23(92) Appendix 3 which are practically determined figures.

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Recommended systems comply to ISO 12944

ISO 12944	First coat	Intermediate coating options	Finish coat options
C5 m/i high	Amercoat 68E	Amercoat 370 Amercoat 385	Amercoat 450 series Amercoat 229
C5 m/i high	Amercoat 68E	Amerlock series Amercoat 383H	Amercoat 450 series
C5 m/i high	Amercoat 68E		Amershield* PSX 700*
Up to 200°C	Amercoat 68E		Amercoat 891

* An additional stripe coat on all edges and difficult to reach areas is essential to reach the overall performance. Check with your PPG representative for detailed recommendations.

Repair

Amercoat 68E may be used to repair itself or inorganic zinc coatings.

Surface Preparation

STEEL – Blast in accordance with ISO 8501-1 Sa 2½ or SSPC-SP6. Blast to achieve a 35 to 65 µm (1,5 - 2,5 mils) profile as determined with Testex Press-O-Film tape or similar instrument. Remove abrasive residues and dust from surface.

Apply Amercoat 68E as soon as possible after surface preparation to prevent any contamination. Do not leave blasted steel uncoated overnight. In case of contamination, remove contaminants. Spot blast steel if needed.

Application Equipment

The following equipment is listed as a guide and suitable equipment from other manufacturers may be used. Adjustments of pressure and change of tip size may be needed to obtain the proper spray characteristics.

AIRLESS SPRAY - Standard airless spray equipment, such as Graco, DeVilbiss, Nordson-Bede, Spee-Flo or others having a 28:1 or higher pump ratio and a fluid tip with a 0.43 to 0.58 mm (0.017 to 0.023 inch) orifice.

CONVENTIONAL SPRAY - Industrial equipment such as DeVilbiss MBC or JGA gun with 765 air cap or Binks No. 18 or 62 spray gun. Separate air and fluid pressure regulators, mechanical pot agitator and a moisture and oil trap in the main air supply line are recommended.

BRUSH/ROLLER – suitable for small areas only, such as touch-up, repairs and stripe coating.

MIXER - Use power mixer powered by an air motor or an explosion proof electric motor.

Application Data

Substrate abrasive blasted steel

Surface preparation..... Abrasive blasting

Application method..... airless or conventional spray, brush or roller

Mixing ratio (by volume)

resin 4 parts

cure 1 part

Environmental conditions (during application and drying)

Air temperature 5-50°C 41-122 °F

Surface temperature 5-60C 41-140°F

Surface temperature must be at least 3°C (5°F) above dew point to prevent moisture condensation on the surface.

Never apply coatings under adverse environmental conditions.

Ensure good ventilation when applied in confined areas to assist evaporation and eliminations of solvents.

Potlife °C/°F (hours)	5/41	10/50	20/68	40/104
	16	12	8	2

Drying times °C/°F (at 75µm/3mils)

	5/41	10/50	20/68	40/104
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Dry through (hours).....	16	8	4	1.5
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Topcoat time	16	8	4	1.5
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Drying times are dependent on air and steel temperature, applied film thickness, ventilation and other environmental conditions.

Times are proportionally shorter at higher temperatures and longer at lower temperatures..

Overcoating: For final use Amercoat 68E is normally overcoated.

See „typical systems“ above. Before overcoating ensure that the surface is clean and free from zinc salts and other contamination.

Maximum overcoating time will depend upon the age and conditions to which the coating has been exposed. A degree of surface preparation will be required. Consult your PPG representative for recommendation.

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Application Procedure

Amercoat 68E is packaged in the proper mixing proportions of resin and cure.

Resin: 8 l (2,1 gal) in 10 l can
Cure: 2 l (0,53 gal) in 2½ l can

1. Flush equipment with Thinner 91-83 before use.
2. Stir resin (in the larger container) to an even consistency with a power mixer.
3. Add cure to resin and continue stirring for 5 minutes. Strain material through 250 µm (60 mesh) screen to prevent possible clogging of equipment. NOTE: Since the potlife is limited and shortened by high temperatures, do not mix more material than will be used in 8 hours at 20°C (68°F).
4. Thinning is normally not required for airless spray. For conventional spray, thin only as needed for workability, with up to 10 vol.% of Thinner 91-83.
5. Stir during application to maintain uniformity of material. Apply a wet coat even, parallel passes. Overlap each pass 50% to avoid bare areas, pinholes or holidays.
6. Double coat all welds, rough spots, sharp edges and corners, rivets, bolts, etc.
7. Application at 132 µm (5,3 mils) wet film thickness will normally provide 75 µm (3 mils) dry film. Avoid over application which can result in reduced cohesive strength when overcoated.
8. Check thickness of dry coating with a non- destructive dry film thickness gauge, such as Mikrotest or Elcometer. If less than specified thickness, apply additional material as needed.
9. Small damaged or bare areas and random pinholes or holidays can be touched up by brush. Repair larger areas by spray.
10. In confined areas ventilate with clean air during application and drying until all solvents are removed. Temperature and humidity of ventilating air must be such that moisture condensation will not form on surface.
11. Clean all equipment with Thinner 91-83 immediately after use or at least at the end of each working day or shift. When left in spray equipment, Amercoat 68E will cure and cause clogging.

Shipping Data

Packaging
resin 8 l (2,1 gal) in 10 l can
cure 2 l (0,53 gal) in 2½ l can

Shipping weight
resin approx. 28 kg
cure approx. 2.5 kg

Shelf life 1 year from shipment date
when stored indoors in
unopened, original containers
at 5 to 40°C (41-104°F).

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Caution

This product is flammable. Keep away from heat and open flame. Keep container closed. Use with adequate ventilation. Avoid prolonged and repeated contact with skin. If used in confined areas, observe the following precautions to prevent hazards of fire or explosion or damage to health:

1. Circulate adequate fresh air continuously during application and drying;
2. Use fresh air masks and explosion proof equipment;
3. Prohibit all flames, sparks, welding and smoking. Do not empty into drains. Take precautionary measures against static discharges. For specific information on hazardous ingredients, required ventilation, possible consequences of contact and safety measures see Safety Data Sheet

Safety

Since improper use and handling can be hazardous to health and cause of fire or explosion, safety precautions included with Product Data/Application Instruction and Material Safety Data Sheet must be observed during all storage, handling, use and drying periods.

Warranty

PPG warrants its products to be free from defects in material and workmanship. PPG's sole obligations and Buyer's exclusive remedy in connection with the products shall be limited, at PPG's option, to either replacement of products not conforming this warranty or credit to Buyer's account in the invoiced amount of the non-conforming products. 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, or one year from the delivery date, 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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To avoid any confusion that may arise through translation into other languages, the English version of the Product Data/Application Instructions will be the governing literature and must be referred to in case of deviations with product literature in other languages.

Condition of Sale

All our transactions are subject to our Terms and Conditions of Sale.