

Amercoat 5105

Alkyd Zinc Phosphate Primer (5105 Series)

Product Data/ Application Instructions

- **Fast drying alkyd zinc phosphate primer**
- **A general purpose primer for above-water service**
- **Recommended for use on steel where a conventional topcoat system is required**
- **Excellent sprayability**
- **Resists corrosion**
- **Contains no lead or chrome pigments**
- **Low VOC**

Amercoat 5105 is a general purpose primer for above-water service.. To obtain the maximum performance for which Amercoat 5105 is formulated, strict adherence to all application instructions, precautions, conditions and limitations is necessary. If conditions exist that are not within the requirements or limitations described, consult your PPG representative.

Typical Uses

As a primer for structural steel to be topcoated with alkyd or oil-based finish coats.

Outstanding Characteristics

Amercoat 5105 is a fast drying alkyd primer with excellent sprayability using either airless or conventional spray equipment. Amercoat 5105 has corrosion resistance typical of high quality alkyd primers for steel and will minimize corrosion that may occur in the time between priming and topcoating of the structure.

Application Data Summary

Like all high performance coatings, Amercoat 5105 must be applied as recommended to obtain the maximum protection for which this coating is formulated.

Physical Data

Finish	flat
Colour	light grey, oxide red, off white
Components	1
Curing mechanism	solvent release and reaction with oxygen from the air
Volume solids	58% (ISO 3233) *
VOC**	
EC SED 1999/13/EC.....	286 g/kg (421 g/l)
UK PG6/23(92) Appendix 3	395 g/l (3.3 lbs/gal)
Dry film thickness	50 - 100 µm (2 - 4 mils) per coat
Number of coats	1 - 2
Calculated coverage	m ² /l ft ² /gal
at 25 µm (1 mil)	23.2 945
at 50 µm (2 mils)	11.6 472µm
Allow for application losses, surface irregularities, etc.	
Specific gravity	1.53 ± 0.1 kg/l
Flash points (Closed Cup) .	°C °F
Amercoat 5105	24 75
Amercoat 65	24 75
Thinner/cleaner	Amercoat 65

* Volume solids is measured in accordance with ISO 3233. 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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Surface Preparation

STEEL - Blast in accordance with Swedish Standard Sa 2½ SIS 05 5900 - 1967, ISO 8501-1 or SSPC-SP-10. NOTE: the surface profile should not exceed 100 µm, as determined with a Keane Tator Surface Profile Comparator or similar instrument. Remove abrasive residues and dust from surface.

IMPORTANT - Apply Amercoat 5105 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.

REPAIR OF PREVIOUSLY COATED SURFACES - Spot blast or power tool clean bare substrate to the requirements shown under surface preparation. Feather edges of intact coating. Remove dust, dirt and contamination before recoating. If blasting is not practicable, clean steel by mechanical discing or needle-gunning to Swedish Standard St 2 SIS 05 5900-1967. Avoid excessive burnishing of the steel.

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 0.38 to 0.53 mm (0.015 to 0.021 inch) orifice.

CONVENTIONAL SPRAY - Industrial equipment such as DeVilbiss MBC or JGA gun with 78 or 765 air cap and "E" fluid tip and heavy mastic spring or Binks No. 18 or 62 with a 66 x 63 PB nozzle setup. Separate air and fluid pressure regulators and a mechanical pot agitator are recommended. A moisture and oil trap in the main air supply line is essential.

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

Application Data

Substrate bare steel

Application methods airless or conventional spray, brush or roller

Environmental Conditions (during application and drying)

Air temperature 5 to 43°C 41 - 109°F
Surface temperature... 5 to 50°C 41 - 122°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 reverse environmental conditions. Ensure good ventilation when applied in confined areas to assist evaporation and eliminations of solvents.

Drying Times (°C/°F).....	10/50	20/68	30/86
dry to touch (minutes).	30	15	10
dry to handle (hours)...	4	2	1
dry to recoat (hours)			
minimum	4	2	1
maximum		unlimited	

NOTE: 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. Prior to recoating ensure the surface is clean. Maximum recoating time depends on coating system to be used. Consult your PPG representative for specific recommendations.

Thinner/cleaner..... Amercoat 65



Amercoat 5105

Application Procedure

Amercoat 5105 packaged as 20 l (5.3 gal) in a 20 l can.

1. Flush equipment with recommended cleaner before use.
2. Stir the product to an even consistency with a power mixer.
3. For conventional spray, thin only as needed for workability with no more than 10% by volume of recommended thinner. Thinning is normally not needed for airless spray.
4. Stir during application to maintain uniformity of material. Apply a wet coat by even, parallel passes. Overlap each pass 50% to avoid bare areas, pinholes or holidays.
5. Double coat all welds, rough spots, sharp edges and corners, rivets, bolts, etc.
6. Application at 100 µm (4 mils) wet film thickness will normally provide 50 µm (2 mils) dry film.
7. 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.
8. Small damaged or bare areas and random pinholes or holidays can be touched up by brush. Repair larger areas by spray.
9. 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.
10. Clean all equipment with recommended cleaner immediately after use or at least at the end of each working day or shift.

Shipping Data

Packaging 20 l (5.3 gal) in a 20 l can

Shipping weight approx. 32 kg

Packaging 5 l (1.3 gal) in a 5 l can

Shipping weight approx. 8 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, exposure 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.

PPG makes no other warranties concerning the product. No other warranties, whether express, implied or statutory, such as warranties of merchantability or fitness particular purpose, shall apply. In no event shall PPG be liable for consequential or incidental damages.

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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.

