AMERCOAT®

Protective Coatings

Amercoat 138

Epoxy Preconstruction Primer

Product Data/ Application Instructions

- **Use as a weldable preconstruction primer or field or shop applied primer**
- **Permits almost immediate handling, welding, cutting and fabricating**
- **Can be used with a wide range of topcoats**
- **Easily applied by automatic spray equipment**
- **Chromate and lead free**

Typical Uses

As a weldable preconstruction primer in automated shoppriming plants over abrasive blast cleaned steel: protects against weathering on flat steel plates and structural steel shapes. A single coat applied at 20 to 25 µm protects against weathering during handling and fabricating. Steel primed with Amercoat 138 can be readily cut and welded by automatic and manual methods. After fabrication, overcoat with suitable topcoat systems.
INDUSTRIAL - Structural steel, machinery, pipes and tank exteriors in paper mills, oil refineries, power plants, chemical process and waste treatment plants.
MARINE - Decks, hulls, bottoms and superstructures of ships, barges and workboats. Piers, offshore platforms and related structures.

Outstanding Characteristics

Amercoat 138 is an iron oxide and zinc phosphate pigmented, anticorrosive fast drying epoxy preconstruction primer, providing protection against corrosion during construction. Amercoat 138 is a tough and adherent primer, used on abrasive blast cleaned steel. It provides (dry film thickness 20-25 µm) up to 6 months protection in mild industrial environments. Suitable for application by airless or conventional spray, using automatic or manual spray equipment.

Approvals and Certificates

- Meets the requirements of DVS-0501 as tested by the German *Schweißtechnische Lehr- und Versuchsanstalt* in Duisburg.
- Approved as weldable primer for application on blast cleaned steel plates and sections by *Det Norske Veritas*.
- Complies with the requirements for weldable primers of *Germanischer Lloyd*.
- Meets the requirements of French standard NF 35511.
- Suitable for Robot welding, as tested by Caterpillar, France.
- Approved by the French *Commissariat à l'Energy Nucleaire, Service Hygiene industrielle de Pierrelatte* for welding and cutting, meeting the requirements for non-toxicity for welders and the environment.

Physical Data

Finish	flat
Colour	oxide red, grey
Components	2
Mixing ratio (by weight)	
resin	5 parts
cure	2 parts
Curing mechanism	solvent release and reaction between components
Dry film thickness	15 - 25 µm
Number of coats	1
Volume solids	23% (ASTM D2697, modified)*
VOC**	
EC SED 1999/13/EC	641 g/kg (694 g/l)
UK PG6/23(92) Appendix 3	692 g/l
Calculated coverage	11.5 m^2/l at 20 µm
Allow for application losses, surface irregularities, etc.	
Specific gravity	1.10 kg/l (mixed product)

Flash points (Closed Cup)	°C	°F
resin	-3	27
cure	-5	23
Thnner 21-04	4	39

***** Volume solids is measured in accordance with ASTM D2697 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

TOPCOATING - Suitable topcoats are epoxies, alkyds, vinyls, coaltar epoxies, polyurethanes and chlorinated rubbers. Prior to topcoating, the primed surface must be clean and free of contamination, dust and foreign matter; special attention must be given to damaged areas. Damaged areas can be repaired with Amercoat 138 after cleaning by spot blasting or mechanical cleaning methods such as wire brushing, depending on the service conditions. Refer also to the specific requirements and recommendations shown in the product data for the intermediate and topcoats to be applied. For specific recommendations contact your PPG representative.

Surface Preparation

STEEL - Blast in accordance with Swedish Standard Sa 2½ SIS 05.5900.1967, ISO 8501-1 or Steel Structures Painting Council SP-10. NOTE: blast to achieve a 25 to 50 µm profile as determined with *Testex* Tape or similar instrument. Remove abrasive residues and dust from surface.
IMPORTANT - Apply Amercoat 138 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 Bulldog Hydra or larger, DeVilbiss, Nordson-Bede, Spee-Flo or others having a 28:1 or higher pump ratio and a fluid tip with a 0.38 to 0.62 mm (0.015 to 0.025 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 set-up. Separate air and fluid pressure regulators and a mechanical pot agitator and 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 Summary

Like all high-performance coatings, Amercoat 138 must be applied as recommended to obtain the maximum protection for which this coating is formulated. To obtain the maximum performance for which Amercoat 138 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.

Application Data

Substrate ..... abrasive blasted steel

Application methods ..... airless or conventional spray

Environmental Conditions (during application and drying)

Air temperature	5 to 50°C	41 to 122°F
Surface temperature	5 to 60°C	41 to 140°F

To prevent moisture condensation during application, surface temperature must be at least 3°C/5ºF above dew point. Never apply coatings under reverse environmental conditions. Ensure good ventilation when applied in confined areas, to assist evaporation and elimination of solvents.

Drying Times

(at 25 µm dft) ºC/ºF	20/68	30/86	40/104
dry to touch (minutes)	3	1	½
dry to handle (minutes)	10	5	2
before full-service (minutes)	60	30	15

NOTE: drying times are dependent on air and steel temperatures, 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 recommendation.

Recoating Times ºC/ºF	10/50	20/68	30/86
minimum (hours)	2	1	½
maximum	-	-	- *

* coating must be in good condition, free of contamination, dust, oil and grease

Potlife (at 20°C/68ºF) ..... 16 hours

Potlife is dependent on temperature and quantities mixed.

Thinner/cleaner ..... Tninner 21-04

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Application Procedure

Amercoat 138 is packaged in the proper mixing proportions of resin and cure.

resin	12.32 l in 20 l can
cure	7.68 l in 10 l can

1. Flush equipment with Thinner 21-04.
2. Stir each of the components prior to mixing to an even consistency with a power mixer.
3. Add cure to resin, and continue stirring for 5 minutes. NOTE: since the potlife is limited and shortened by high temperatures, do not mix more material than will be used within the potlife period (16 hours at 20°C/68ºF)
4. For conventional spray, thin only as needed for workability with no more than 10% of thinner Thinner 21-04
5. 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.
6. Give special attention to welds, rough spots, sharp edges and corners, rivets, bolts, etc.
7. Application at 110 µm wet film thickness will usually provide a 25 µm dry film.
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. When spraying automatically, use glass plates and a surface micrometer to check dry film thickness and to adjust the equipment to the required dft.
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 21-04 immediately after use or at least at the end of each working day or shift. When left in spray equipment, Amercoat 138 will cure and cause clogging.

Shipping Data

Packaging

resin	12.32 l in 20 l can
cure	7.68 l in 10 l can

Shipping weight

resin	approx. 20 kg
cure	approx. 8 kg

Shelf life

resin	1 year from shipment date when stored indoors in unopened, original containers at 5 to 40°C (41 to 104°F).
cure	1 year from shipment date when stored indoors in unopened, original containers at 5 to 40°C (41 to104°F).

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Caution
This product is highly 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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Due to PPG's policy of continuous product improvement, the information contained in this Product Data/Application Instructions sheet is subject to change without notice. It is the Buyer's responsibility to check that this issue is current prior to using the product. For the most up-to-date Product Data/Application Instructions always refer to the PPG Protective & Marine Coatings website at www.ppgpmc.com

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.