

Amercoat 878HS

Heat Resistant Silicone Coating (878 Series)

Product Data/ Application Instructions

- High temperature resistant silicone aluminium coating
- Can be applied on steel and Dimetcote primers

Typical Uses

Amercoat 878HS is a heat resistant silicone coating for industrial and marine use and is used for among others exteriors of steel structures exposed to high temperatures, in chemical plants, marine structures, ships, power plants, oil production and refining plants.

Recommended Systems

Amercoat 878HS is a high performance, high temperature resistant coating. Amercoat 878HS can be used as a self priming coating system over abrasive blast cleaned steel. Amercoat 878HS may also be applied over most Dimetcote primers, such as Dimetcote 6, Dimetcote 9 and Dimetcote 11.

Approvals and Certificates

Approved for ARAMCO specification APCS 11B, APCS 11A (primer Dimetcote 6).
Complies with COT 23.12 (specification for heat resistant silicon-aluminium coating).

Application Data Summary

To obtain the maximum performance for which Amercoat 878HS 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.

Physical Data

Finish	semi gloss	
Colour	RAL 9006 (aluminium)	
Components	1	
Curing mechanism	evaporation of solvents and heat cure	
Volume solids	40% (ISO 3233)*	
VOC**		
EC SED 1999/13/EC	545 g/kg (632 g/l)	
UK PG6/23(92) Appendix 3	677 g/l (5.6 lbs/gal)	
Dry film thickness	25 µm (1 mil)per coat ***	
Number of coats	on steel: 2 on Dimetcote: 1-2	
Calculated coverage	16 m ² /l at 25 µm 652 ft ² /gal at 1 mil	
Allow for application losses, surface irregularities, etc.		
Temperature resistance	dry heat	
Applied over steel	538°C (1000°F)	
Applied over Dimetcotes.....	400°C (750°F)	
Specific gravity	1.16 kg/l	
Flash points (Closed Cup).....	°C	°F
Amercoat 878HS	23	73
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.

*** Application at higher thicknesses may result in cracking and insufficient adhesion.

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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: Blast to achieve a 25 to 40 µm profile, as determined with *Testex* Tape or similar instrument. Remove abrasive residues and dust from surface.

IMPORTANT - Apply Amercoat 878HS 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.

DIMETCOTE - Surface must be free of any foreign matter. Remove any contamination. Refer to application instructions for the particular Dimetcote for any other special topcoating requirement.

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 0.28 to 0.42 mm (0.011 to 0.017 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 abrasive blasted steel,
Dimetcote primers, stainless steel

Application methods conventional or airless spray

Environmental Conditions (during application)

Air temperature: 0 to 50°C 32 - 122°F

Surface temperature: 0 to 60°C 32 - 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 elimination of solvents.

Potlife (at 20°C/68°F) not applicable

Drying Times (at 25 µm (1 mil) and 21°C/70°F)

dry to recoat 1 hour

dry before service 2 hours

Final cure and hardness will be obtained by curing at 200°C minimum. This can be obtained after the coated surfaces are put into service.

NOTE: Drying times are dependent on air and steel temperature, applied film thickness, ventilation and other environmental conditions. Times are proportionally shorter at higher temperature 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.

Induction time (at 20°C/68°F) not applicable

Thinner/cleaner Amercoat 65



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Application Procedure

Amercoat 878HS is a one component material and is packaged in a 20 l can.

1. Flush equipment with Amercoat 65 before use.
2. Stir all material thoroughly before applying.
3. For conventional spray, thin only as needed for workability with no more than 10% of thinner Amercoat 65. Thinning is normally not needed for airless spray.
4. Spray on an even wet coat, making parallel passes and overlapping each pass 50%. Follow with a "cross-spray" pass at right angles to first pass. Give special attention to angles, corners, rough spots, edges, etc., to avoid pinholes, bare areas and holidays.
5. Application at 65 µm (2.6 mils) wet film thickness will normally provide 25 µm (1 mil) dry film.
6. Check thickness of dry coating with a non-destructive dry film thickness gauge, such as Mikrotest or Elcometer.
NOTE: application at excessive thicknesses may result in cracking and insufficient adhesion.
7. To repair or touch up bare areas, pinholes or holidays, simply apply additional materials. Smaller areas may be brushed. Allow 1 hour at 21°C (70°F) between full coats.
8. 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.
9. Clean all equipment with Amercoat 65 immediately after use or at least at the end of each working day or shift. When left in spray equipment, Amercoat 878HS will cure and cause clogging.

Shipping Data

Packaging 20 l (5.3 gal) in 20 l can

Shipping weight approx. 30 kg

Packaging 5 l (1.3 gal) in 5 l can

Shipping weight approx. 6.4 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.

Any recommendations or suggestion relating to the use of the products made by PPG, whether in its technical literature, or response to specific enquiry, or otherwise, is based on data believed to be reliable; however, the products and information are intended for use by Buyer's having requisite skill and know-how in the industry, and therefore it is Buyer to satisfy itself of the suitability of the products for its own particular use and it shall be deemed that Buyer has done so, as its sole discretion and risk. Variation in environment, changes in procedures of use, or extrapolation of data may cause unsatisfactory results.

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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.

