AMERCOAT® 878

DESCRIPTION

One-component, high temperature silicone aluminum

PRINCIPAL CHARACTERISTICS

- 100% silicone aluminum coating
- Resistant to dry temperature up to 1000°F(538°C)
- Applied on prepared steel, stainless steel, or inorganic zinc
- Suitable for rapid thermal cycling
- Requires a heat cure at 300°F(149°C) minimum

COLOR AND GLOSS LEVEL

- Aluminum
- Semi-gloss

BASIC DATA AT 68°F (20°C)

Data for product	
Number of components	One
Volume solids	31 ± 2%
VOC (Supplied)	max. 5.4 lb/US gal (approx. 647 g/l)
Recommended dry film thickness	0.8 - 2.0 mils (19 - 50 µm) depending on system
Theoretical spreading rate	622 ft^2/US gal for 0.8 mils (15.5 m^2/l for 20 µm)
Shelf life	At least 24 months when stored cool and dry

Notes:
- See ADDITIONAL DATA – Overcoating intervals
- See ADDITIONAL DATA – Curing time

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TEMPERATURE RESISTANCE

Temperature resistance		
First coat	**Second coat**	**Temperature resistance**
AMERCOAT 878 (0.8 - 1.0 mils)	AMERCOAT 878 (0.8 - 1.0 mils)	1000°F (540°C)
AMERCOAT 878 (1.0 - 2.0 mils)	AMERCOAT 878 (1.0 - 2.0 mils)	750°F (400°C)
DIMETCOTE 9-series (2.0 - 3.0 mils)	AMERCOAT 878 (1.5 - 2.0 mils)	750°F (400°C)

Note: Product should be sprayed in a mist coat/full coat technique when applying over inorganic zinc primers

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 withan angular abrasive to an SSPC SP-10 cleanliness or higher. Achieve a surface profile of 1.0 – 1.5 mils (25 – 38 µm)
- Apply this product as soon as possible to avoid rusting of blasted surfaces

Stainless steel

- Abrasive blast with a hard angular abrasive to achieve a uniform and dense anchor profile of 1.0 – 1.5 mils (25 – 38 µm)

Inorganic zinc surfaces

- Surface must be clean, dry and free of zinc salts
- A mist coat / full coat application technique may be required to prevent application bubbling

Substrate temperature

- Surface temperature during application should be between 50°F (10°C) and 104°F (40°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 50°F (10°C) and 104°F (40°C)
- Relative humidity during application should be above 0% and below 85%

INSTRUCTIONS FOR USE

- Mix with a pneumatic air mixing at moderate speeds to homogenize the container

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Application

- Area should be sheltered from airborne particulates and pollutants
- Provide shelter to prevent wind from affecting spray patterns

Material temperature

Material temperature during application should be between 50°F (10°C) and 90°F (32°C)

Air spray

- An agitated pressure pot is recommended
- Separate air and fluid regulators are essential
- Ensure there is a moisture and oil trap in the main air line

Recommended thinner

THINNER 21-06 (AMERCOAT 65)

Nozzle orifice

Approx. 0.070 – 0.079 in (1.8 – 2.0 mm)

Nozzle pressure

Atomizing pressure 30 - 45 p.s.i. (2.0 - 3.0 bar); Fluid pressure as required

Airless spray

- 33:1 pump or larger

Recommended thinner

THINNER 21-06 (AMERCOAT 65)

Nozzle orifice

0.013 – 0.015 in (approx. 0.33 – 0.38 mm)

Brush/roller

- Use a high quality natural bristle brush. Ensure brush is well loaded to avoid air entrainment. Brush application is limited to small touch up areas of a few square inches

Recommended thinner

AMERCOAT 65

Cleaning solvent

AMERCOAT 12 CLEANER or AMERCOAT 65 THINNER (xylene)

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ADDITIONAL DATA

Overcoating interval for DFT up to 2.0 mils (51 µm)					
Overcoating with...	**Interval**	**50°F (10°C)**	**70°F (21°C)**	**80°F (27°C)**	**90°F (32°C)**
itself	Minimum	2 hours	1 hour	45 minutes	30 minutes
	Maximum	Extended	Extended	Extended	Extended

Notes:
- Surfaces to be overcoated must be clean and dry
- Consult with PPG Technical Service for instructions for recoating after high temperature service.

Curing time for DFT up to 2.0 mils (51 µm)	
Substrate temperature	**Light impact/abrasion**
50°F (10°C)	36 hours
60°F (16°C)	24 hours
70°F (21°C)	18 hours
90°F (32°C)	10 hours
95°F (35°C)	8 hours
100°F (38°C)	6 hours

Heat cure procedures

Temperature	**Cure to service**
300°F (150°C)	2 hours

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.

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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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Packaging: Available in 1 and 5 gallon containers

Product code	Description
AT878-01	AMERCOAT 878

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