Product Data/ Application Instructions

- Self-priming
- VOC-compliant
- Single-package convenience
- Semigloss or satin
- Brush, roll or spray
- Dries fast, minimum downtime
- Interior for OEM
- Excellent gloss retention and weathering
- Superior impact resistance and flexibility
- Washable, scrub-resistant
- Durable, chemical-resistant
- Stain resistant
- Quick, easy clean up
- Wide color range

Amercoat 220 is a high-performance waterborne acrylic enamel that may be applied direct to metal* on most exterior and interior surfaces. Also ideal for concrete and masonry, it may be used over tightly adhering old paint and rust as well as primed surfaces. Amercoat 220 provides a beautiful, flexible, cleanable gloss finish that resists cracking, peeling and impact damage. Amercoat 220 significantly out-performs conventional acrylic coatings. It retains color and gloss like a polyurethane, far better than traditional alkyds.

Amercoat 220 requires minimal surface preparation, usually only metal etching or power tool cleaning to remove loose rust. Easy to apply and clean up, Amercoat 220 is a versatile topcoat for a wide variety of new construction and maintenance applications. Contact your PPG representative for conditions outside the requirements or limitations described.

*Important – Amercoat 220 deep or dark colors made from neutral or clear tint base should always be used with a prime coat when going over metallic surfaces such as steel and aluminum.

Typical Uses

- Walls
- Food processing plants
- Institutional maintenance and new construction
  - Schools
  - Hospitals
  - Laboratories
  - Storage areas
- Industrial maintenance and new construction
  - Tank exteriors
  - Structural steel
- Marine applications
  - Vessel topsides and interiors
  - Offshore platform topsides and interiors

Not recommended for continuous immersion

Physical Data

Finish: Semigloss
Color: See color chart

Uniform appearance will require two coats of white or pastel colors over dark substrates. Use only light-colored primer or intermediate coat when one finish coat of white or pastel Amercoat 220 is specified.

Gloss varies with color.

Yellow, red and orange colors will fade faster than other colors due to the replacement of lead-based pigments with lead-free pigments in these colors.

Components: 1

Curing mechanism: Drying

Volume solids (calculated): 35% ± 3%

Dry film thickness per coat: 2 mils (50 microns)
- direct-to-metal: 2-5 mils (50-125 microns)

Coating thickness depends on severity of exposure and surface roughness.

Coats: 1 to 2

Theoretical coverage: ft²/gal m²/L
- 1 mil (25 microns): 561 13.8
- 2 mils (50 microns): 280 6.9

VOC: 1.5 lb/gal 180 g/L

Flash point (SETA): °F °C
- Amercoat 220 >212 >100

Qualifications

NFPA – Class A
USDA – Incidental Food Contact

Application Data

Applied over: Prepared or primed steel and concrete, previously painted surfaces, wood, aluminum, galvanizing, dry wall

Primer: 148, 385, 400, 5105, Dimetcote® 21-5 or D9 Series

When applying over Dimetcote 21-5, Amercoat 856 Additive must be used.

Surface preparation: See primer application instructions

Method: Conventional or airless spray, brush, roller

Environmental conditions

Temperature:
- air: 40 to 110 °F 4 to 43 °C
- surface: 40 to 120 °F 4 to 49 °C

Relative humidity: %
- (maximum): 40% 50 to 100% >100
- 60% 85% 95%

Surface temperatures must be at least 5°F (3°C) above dew point to prevent condensation.

Formerly Amerguard™ 220
Surface Preparation

Coating performance is proportional to the degree of surface preparation. Clean surface thoroughly to remove any dust, dirt, grease, oil, loose paint or other contaminants. Clean by using scrub brushes and detergent.

Steel* – Remove all loose rust, dirt, grease or other contaminants by one of the following depending on the degree of cleanliness required: SSPC-SP3; SSPC-SP2; SSPC-SP6; SSPC-SP7. Water blasting is also acceptable. For more severe service, clean to SSPC-SP10. The choice of surface preparation will depend on the system selected and end-use service conditions.

Galvanizing* – Remove oil or soap film with neutral detergent or emulsion cleaner. Then use zinc treatment such as Galvaprep® or equivalent or blast lightly with fine abrasive.

Aluminum* – Remove oil, grease or soap film with neutral detergent or emulsion cleaner; treat with Alodine® 1200, Alumiprep® or equivalent or blast lightly with fine abrasive.

Concrete/masonry – Clean concrete surface, abrasive blast ASTM D4259 or acid-etch ASTM D4260. Fill concrete voids with Amercoat 965 or 114A. Clean masonry surface by ASTM D4261. Fill masonry block with Amerlock® 400BF Block Filler or Amercoat 147 Waterborne Block Filler.

Wood – Sand new and bare wood to remove any surface contamination and surface cells. Remove oil spots, sap or pitch by wiping with Amercoat® 65. Properly dispose of solvent rags to avoid spontaneous combustion hazard. A wood primer or a first coat of Amercoat 220 may be used to prime surface. To recoat primed wood, remove all dirt, grease or oil with a cleaner. Rinse with clean water. Remove wax with commercial dewaxer. Sand loose paint to a tight, adherent surface.

Aged coatings* – All surfaces must be clean, dry, tightly bonded and free of all loose paint, corrosion products or chalky residue. Clean by pressure water blast (1000 psi or greater), SSPC-SP1, SSPC-SP3 or SSPC-SP7.

Drywall – Tape all joints, fill cracks and nail holes with patching paste or spackle; sand smooth. Remove all dust. Unsealed surface will require two coats of Amercoat 220.

Dimetcote* – When applying directly over inorganic zinc or zinc-rich primers, a mist coat may be required to minimize bubbling. This will depend on age of coating, surface roughness and conditions during curing. Refer to specific primer being used for surface preparation.

*Important – Amercoat 220 deep or dark colors made from neutral or clear tint base should always be used with a prime coat when going over metallic surfaces such as steel and aluminum.

Application Equipment

The following is a guide; suitable equipment from other manufacturers may be used. Changes in pressure and tip size may be needed for proper spray characteristics.

Airless spray – Standard equipment such as Graco Series 600. Tip sizes from 0.015- to 0.019-inch fluid tip.

Conventional spray – Industrial equipment, such as DeVilbiss, MBC or JGA spray gun. Separate air and fluid pressure regulators and a moisture and oil trap in the main air supply line are recommended.

Power mixer – Jiffy Mixer

Brush – Natural bristle. Maintain a wet edge.

Roller – Natural solvent resistant roller. Level any air bubbles with bristle brush.

Environmental conditions

<table>
<thead>
<tr>
<th>Temperature</th>
<th>°F</th>
<th>°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>air</td>
<td>40 to 110</td>
<td>4 to 43</td>
</tr>
<tr>
<td>surface</td>
<td>40 to 120</td>
<td>4 to 49</td>
</tr>
</tbody>
</table>

Relative humidity

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Relative Humidity</th>
</tr>
</thead>
<tbody>
<tr>
<td>40°F</td>
<td>maximum 60%</td>
</tr>
<tr>
<td>50 to 100°F</td>
<td>maximum 85%</td>
</tr>
<tr>
<td>above 100°F</td>
<td>maximum 95%</td>
</tr>
</tbody>
</table>

Surface temperatures must be at least 5°F (3°C) above dew point to prevent condensation.

Application Procedure

1. Flush equipment with fresh water before using.

2. Stir material thoroughly to a workable consistency to ensure suspension of pigments. Thinning is not normally required. If thinning is required for workability, add up to 1/2 pt of water per gallon of Amercoat 220. Do not exceed thinning limit. Film build will be reduced.

Drying time (ASTM D1640) @ 2 mils DFT.

<table>
<thead>
<tr>
<th>Time (min)</th>
<th>°F/°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>touch</td>
<td>90/32</td>
</tr>
<tr>
<td>through</td>
<td>15</td>
</tr>
<tr>
<td>hours</td>
<td>1</td>
</tr>
</tbody>
</table>

Recoat time (hours)

<table>
<thead>
<tr>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>None, see surface preparation for aged coatings</td>
</tr>
<tr>
<td>3</td>
<td>13</td>
</tr>
</tbody>
</table>

Cracking may occur at temperatures below 50°F during initial drying.

3. Apply a wet coat in even, parallel passes; overlap each pass 50 percent to avoid bare areas, pinholes. If required, cross spray at right angles.

4. Ventilate with clean air during application and drying. Temperatures and relative humidity of ventilating air will affect drying times. Avoid contact with water or condensation on the coating surface until dry through. Otherwise, surface discoloration may occur.

5. Clean all equipment immediately after use with fresh water to remove any partially dried material.
**Typical Properties**

**Performance**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abrasion (ASTM D4060)</td>
<td>weight loss</td>
</tr>
<tr>
<td>CS-17, 1000 cycles, 1 kg</td>
<td>110 mg</td>
</tr>
<tr>
<td>Impact (ASTM G14)</td>
<td>160 in/lbs</td>
</tr>
<tr>
<td>Adhesion (Elcometer) (ASTM D4541)</td>
<td>500 psi</td>
</tr>
<tr>
<td>Flexibility (ASTM D522)</td>
<td>&gt;35%</td>
</tr>
<tr>
<td>Moisture vapor transmission (ASTM D1653)</td>
<td>1.04</td>
</tr>
<tr>
<td>Specific permeability</td>
<td></td>
</tr>
<tr>
<td>temperature resistant (dry)</td>
<td>°F/°C</td>
</tr>
<tr>
<td>Continuous</td>
<td>200/93</td>
</tr>
<tr>
<td>Intermittent</td>
<td>250/121</td>
</tr>
<tr>
<td>Weatherability (QUV &amp; Florida Exposure)</td>
<td></td>
</tr>
<tr>
<td>Chalk resistant</td>
<td>1 yr/Excellent</td>
</tr>
<tr>
<td>Gloss retention</td>
<td>1 yr/Excellent</td>
</tr>
<tr>
<td>Salt Spray (ASTM B117)</td>
<td>1000 hrs; 1 coat</td>
</tr>
<tr>
<td>Face corrosion</td>
<td>None (ASTM D1654)</td>
</tr>
<tr>
<td>Humidity/Condensation (ASTM D4585)</td>
<td>100 hrs; 1 coat</td>
</tr>
<tr>
<td>Face corrosion</td>
<td>None (ASTM D1654)</td>
</tr>
</tbody>
</table>

**Note:** Values are for factory manufactured material. Tint based colors will have reduced water resistance.

**Compatibility**

Coated surfaces: may be applied over most existing coatings, including alkyds, epoxies, vinyls, polyurethanes, acrylic. To insure good adhesion, conduct a compatibility test over clean, intact area or roughen the surface with light abrasive blasting or sanding.

Suitable primers:

- Amercoat 148 Waterborne Acrylic
- Amercoat 351 100% solids multi-purpose epoxy
- Amercoat 385 Epoxy
- Amerlock 400 Epoxy
- Amercoat 5105 Alkyd
- Dimetcote 21-5 Waterbased Inorganic Zinc Silicate
- Dimetcote 9 Series Inorganic Zinc Primer

**Shipping Data**

- Packaging: 1 gal 5 gal
- Shipping weight (approx) lb kg
  - 1-gal can: 11 5
  - 5-gal can: 53 24
- Shelf life when stored indoors at 40 to 100°F (4 to 38°C) 18 months from manufacture date
- Protect from freezing.

**Safety Precautions**

Read material safety data sheet before use. Safety precautions must be strictly followed during storage, handling and use.

**CAUTION** - Improper use and handling of this product can be hazardous to health.

Do not use this product without first taking all appropriate safety measures to prevent property damage and injuries. These measures may include, without limitation: implementation of proper ventilation, use of proper lamps, wearing of proper protective clothing and masks, tenting and proper separation of application areas. Consult your supervisor. Proper ventilation and protective measures must be provided during application and drying to keep spray mist concentrations within safe limits and to protect against toxic hazards. Necessary safety equipment must be used and ventilation requirements carefully observed, especially in confined or enclosed spaces, such as tank interior and buildings.

This product is to be used by those knowledgeable about proper application methods. PPG makes no recommendation about the types of safety measures that may need to be adopted because these depend on application environment and space, of which PPG is unaware and over which it has no control.

If you do not fully understand these warnings and instructions or if you cannot strictly comply with them, do not use the product.

Note: Consult Code of Federal Regulations Title 29, Labor, parts 1910 and 1915 concerning occupational safety and health standards and regulations, as well as any other applicable federal, state and local regulations on safe practices in coating operations.

**This product is for professional use only. Not for residential use.**