



# Amercoat 4187

## Urethane epoxy pitch

(formerly Steelguard 3213)

### Product Data/ Application Instructions

- **Two pack high build urethane epoxy pitch coating**
- **Excellent resistance to water immersion**
- **Excellent abrasion and impact resistance**
- **Fast drying and quick return to service**
- **Rapid low temperature cure down to 0°C/32°F**
- **Extensive track record**

#### Typical Uses

Heavy duty protective coating for offshore immersed areas and splash zones, effluent and sewage treatment, pipes, crude oil tank internals, gas bells and sump tanks. Due to the fast cure and early resistance to water of Amercoat 4187, it is an ideal coating for the maintenance painting of jetties, pontoons, dock walls and gates during intermittent tidal immersion. Also suitable for buried structures such as underground pipe and tank externals. Amercoat 4187 can be used to protect both steel and concrete structures.

#### Mixing

Stir the resin component thoroughly, then add the cure and continue to stir until the product is uniform throughout. A powerful mixer should be used.

#### Overcoating

Can be overcoated with itself to increase the coating thickness. Surface must be abraded if overcoating after maximum overcoating time has elapsed.

#### Physical Data

Appearance when dry .....	semi gloss
Colour .....	black and brown
Components .....	2
Mixing ratio by volume	
Resin.....	5.25 parts
Cure.....	1 part
Volume solids .....	65±3%
VOC .....	340 g/l
Curing mechanism .....	solvent release and chemical reaction between components

	typical	minimum	maximum
Dry film thickness (µm)	150	125	400
Wet film thickness (µm)	231	192	615

(wet film thicknesses quoted are theoretical for one airless spray coat). (600 microns dft can be achieved by airless spray using wet on wet technique)

Theoretical coverage .....	4.3 m <sup>2</sup> /l (at typical dft)
Specific gravity .....	1.3 kg/l (mixed product)
Flashpoint	
(closed cup) .....	°C    °F
Resin.....	2     36
Cure .....	-2    28
Amercoat 12 .....	24    75

# Amercoat 4187

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## Surface Preparation

All surfaces must be dry and free of dust, salts, grease and other contaminants immediately before coating. Reference should be made to the relevant product data sheets of any recommended primers.

**STEEL:** - Normally applied over a suitable anti-corrosive primer such as Amercoat 139 or Amercoat 71. For service in water immersion a primer may not be necessary. In this situation the substrate should be abrasive blast cleaned to ISO 8501-1 Sa2<sup>1/2</sup>. The blast profile achieved should be approximately 50 to 100 microns and be angular as produced by grit. Coating should occur before degradation of the surface takes place. If oxidation occurs then the steel should be re-prepared.

**CONCRETE:** - Any surface laitance must be removed by sweep blasting and any dust and debris cleaned away. Any exposed blow holes should be filled with a suitable epoxy mortar prior to application of the Amercoat 4187.

## Application Methods

**AIRLESS SPRAY** - Tip size 21-25 thou' (0.53-0.63mm). Minimum pressure at tip 2800 psi (200kg/square centimetre).

**BRUSH OR ROLLER** - small areas only.

## Application Data

Substrate ..... steel, concrete

Application methods ..... airless spray

Potlife (at 20°C/68°F) ..... 2 hours

### Environmental Conditions

Amercoat 4187 should only be applied within the limits of temperature and humidity set out below.

Relative humidity: ..... up to 90%  
Surface temperature: ..... minimum 1°C/34°F  
..... maximum 40°C/104°F

The surface temperature must also be at least 3°C/5°F above dew point.

### Drying Characteristics

	°C/°F			
Temperature	0/32	10/50	20/68	30/86
Touch dry	2 hours	1 hour	30 minutes	15 minutes
Hard dry	8 hours	4 hours	2 hours	1 hour
Overcoating (minimum)	2 hours	1 hour	30 minutes	15 minutes
Overcoating (maximum)	21 days	12 days	7 days	4 days

NOTE: drying and curing times are dependent on air and steel temperature, applied film thickness, ventilation and other environmental conditions. Times are shorter at higher temperatures and longer at lower temperatures.

Thinner ..... normally not necessary.

Cleaner ..... Amercoat 12

# Amercoat 4187

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## Application Procedure:

1. Flush equipment with recommended cleaner before use.
2. Stir resin (in the larger container) 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.
4. Thinning is normally not required.
5. Stir during application to maintain uniformity of material. Apply a wet even coat in parallel passes. Overlap each pass 50% to avoid bare areas, pinholes or holidays.
6. Double coat all welds, rough spots, sharp edges and corners, rivets, bolts, etc.
7. Application at 231 µm wet film thickness will normally provide 150 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.
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 recommended cleaner immediately after use or at least at the end of each working day or shift. When left in spray equipment, the product will cure and cause clogging.

Before using the product, read the label on the can and consult the material safety data sheet.

## Shipping Data

Pack size .....	20 litres in two part units
Shipping weight	
Resin.....	approx. 24 kg
Cure .....	approx. 5 kg
Shelf life .....	1 year from shipment date or as indicated on label when stored indoors in unopened, original containers at 5 to 40°C (41 to 104°F)

(The cure is moisture sensitive and will deteriorate if exposed to the atmosphere)

# Amercoat 4187

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## **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.

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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.

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