



## FC210 Ambercoat Product Data Sheet

### Description:

ICAT-FC-210 Ambercoat is an extensively tested (CSA Z245.20) external pipeline coating. The FC-210 is a 100% solids fast set external polyurethane pipeline coating. Based on the FC 210's excellent adhesion and abrasion characteristics, it's extremely quick turnaround time, along with its cold temperature curing characteristics, makes it the "go to" coating for the new construction and rehabilitation of pipelines, valves and bends as well as "winter dig" programs for over 20 years.

### Uses:

FC210 is a two component, 100% solids polyurethane coating system, which may be applied directly to steel.

### Features:

- Quick set / fast turn around times
- Low temperature cure
- High build – up to 60 mils in a single coat
- Grey in colour
- Finish: Gloss
- Pipeline: New Construction & Rehabilitation
- 100% solids content - VOC Compliant
- Excellent Adhesion and Cathodic Protection
- Provides monolithic membrane protection to the substrate
- Quick return to service
- Available in 200L drums (800L kits), 18L pails (72L kits) and brush grade kits of various sizes

### Application:

#### *Surface Prep:*

Surfaces must be clean and dry. Remove all contaminants such as dust, dirt and oils. SSPC SP 10 / NACE 2 Near White with a minimum jagged profile of 3.0 utilizing a suitable abrasive such as silica sand, nickel / copper slag, garnet.

#### *Spray:*

FC-210 Ambercoat shall be applied to blasted steel surfaces using plural component spray equipment. The ratio of the pump shall be 3 parts A (Base) to 1 part B (Curing Agent).

FC-210 Ambercoat Base (Part A) shall be preheated to a temperature of no less than 35°C/95°F while being agitated. A transfer pump with a fluid-to-air ratio of no less than 10:1 is recommended to feed the plural component pump. Inline heaters shall be used on the Base (Part A) side to raise the temperature to 60°C/140°F upon application.



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FC-210 Ambercoat Curing Agent (Part B) shall be transferred to the plural component pump with a minimum 5:1 fluid-to-air pump and should be at a minimum temperature of 15°C/60°F. Agitation is not required unless preheating is done to attain this temperature.

The hose bundle leaving the plural component pump shall be heat traced and insulated to maintain the material temperature. The base (Part A) line shall be 3/8 inch ID and have a minimum operating strength of 5000 psi. The curing agent (Part B) shall be 1/4 inch ID and have a minimum operating strength of 6000 psi. A maximum length of 50 metres (150 feet) shall be used.

The mixing block shall have a material shut off valve prior to entry and must have a solvent flush attachment that will allow the mixing block and whip hose to be flushed of material.

The whip hose shall be 3/16 inch ID and no more than 5 metres (15 feet) in length. The gun shall be a high-pressure airless spray gun with a minimum pressure rating of 3000 psi. The tip size shall be a minimum of 0.027 inches and a maximum of 0.040 inches.

**\*RATIO CHECKS ARE HIGHLY RECOMMENDED AFTER EACH START UP**

## *Brush & Roll:*

Combine pre-measured base material (Part A) with pre-measured curing agent (Part B) and mix thoroughly using a drill with a mixing attachment.

Once mixed, apply to abrasion blasted steel surface using a brush/roller/trowel to attain an even coat.

## *Repair Procedure:* Repairs to coating shall be performed in one of 2 ways:

Small Area Repairs – areas of damage in the coating up to 1000 cm<sup>2</sup> (155 in<sup>2</sup>) may be fixed by grinding out the defective area using an angle grinder or similar tool fitted with an abrasive disc and abrading the surrounding area to attain a transitional bond with the undamaged coating. The entire area may then be coated by brush or roller using FC210 Ambercoat Brush Grade material.

Large Area Repairs – areas larger than those above are recommended to be prepared in the same manner and then repaired by spray application.

## *Testing:*

Holiday testing may be performed when the coating is tack free and has a shore D hardness of at least 60. Destructive testing should be performed after the coating has had at least 24 hours at 25C to cure.

**\*During the blasting operation and until the final coating procedure has been finished, the temperature of the steel shall not be less than 3°C/37°F above the dew point.**



# ICAT INDUSTRIES

Properties	Value
<b>Solids Content</b>	100%
<b>Mixed Material</b>	
• Colour	Grey
• Specific Gravity	1.48 combined A and B
<b>Mixing Ratio</b>	3:1 Ratio
<b>Full Cure Time (25°C)*</b>	24 hours
<b>Estimated time/temperature for cure</b>	
• (15°C/60°F)	2 hours
• (4°C/40°F)	4 hours
• (0°C/32°F)	6 hours
• (-5°C/23°F)	14 hour
<b>Theoretical Coverage</b>	1 sq. m/liter at 1 mm thickness
<b>Thickness</b>	
• Minimum/Maximum	20/120 mils (500/3000 microns)
• Recommended	30/40 mils (750/1000 microns)
<b>Holiday Detection</b>	125 volts/mil (5000 V/mm)
<b>Cathodic Disbondment Test</b>	
• 24 hour @ 65°C	2.1 mm
• 28 days @ 20°C	3.5 mm
• 28 days @ 40°C (max temp)	7.3 mm
<b>Hardness</b>	Shore "D" 75
<b>Impact Resistant @ 0°C</b>	7 Joules
<b>Tabor Abrasion</b>	
CS 17 wheel 1000 cycles 1 kg load	42 mg
<b>0.75° Flexibility</b>	pass
<b>Adhesion to steel</b>	rating 1
<b>Adhesion to existing coating</b>	rating 1
<b>28 day Adhesion to Steel @ 75°C</b>	rating 1
<b>28 day adhesion to Existing Coating @ 95°C</b>	rating 2
<b>Application Temperature</b>	
• Ambient	-40°F to 212°F (-40°C to 100°C)
• Substrate	23°F to 212°F (-5°C to 100°C)
<b>Gauge Resistance</b>	17 mils

**\* For additional data, including curing schedules, please contact the product manufacturer.**

**Storage:** Minimum 24 months when stored in original containers @ 34°F (1°C) to 113°F (45°C). When temperatures are below 32°F (0°C) the catalyst may partially crystalize. If so, slowly bring part B to temperature to 70°F (21°C) and mix.

**Cleaning:** use suitable solvent such as MEK, Acetone, Xylene, Lacquer Thinner (contact manufacture if unknown) to clean equipment.

**Health and Safety:** Always wear protective gear and avoid contact with skin. Do not ingest. See material safety data sheet for further information.

**Packaging:** 18L Pails , 200L drums & premeasured repair kits available upon request

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