

# HitCoat 50

## High Temperature, High Molecular Weight EPOXY

### GENERAL PROPERTIES

**FC-556H High Molecular Weight Epoxy** coating system is a plural component coating system that provides corrosion protection for cathodically protected steel. Its high abrasion resistance coupled with outstanding adhesion and water impermeability make it a superior choice for pipe protection.

**FC-556H High Molecular Weight Epoxy** is designed for immersion service in temperatures up to 145°C (275°F) and dry service in temperatures up to 200°C (400°F). **FC-556H High Molecular Weight Epoxy** allows applications to be performed in difficult conditions that require fast turn around time.

### PHYSICAL PROPERTIES

Colour	Grey
Solids Content	100%
Adhesion Instron at 25°C	3000+ psi
Abrasion Resistance Taber CS 17 wheel 1000g 1000 cycles	42 mg weight loss
Impact Resistance @ 30 mils	30 inch pounds
Hardness	Shore "D" - 92
Cathodic Disbondment 65°C - 1.5V 5% NaCl 14 days, 3 mm holiday	1 mm
Water Soak Adhesion 14 days, 90°C	No loss of adhesion
Film Build	30 mils minimum

# APPLICATION DATA

## General Application Steps

1. Remove oil, grease and loosely adhering deposits.
2. Abrasive blast the surface to NACE No.2/SSPC-SP10 near-white metal, ISO 8501 Sa 2.5
3. Apply FC-556H High Molecular Weight Epoxy at the specified film thickness.
4. Allow to cure.
5. Visually or electrically inspect the coating for deficiencies.
6. Repair any deficiencies.

## Surface Preparation

Steel surfaces shall be clean and free of dirt, oil, or other contaminants prior to abrasive blasting. Slivers, rough welds or other defects in the steel shall be ground out prior to abrasive blasting. Abrasive blasting shall be carried out to a near-white metal blast using clean abrasive. Abrasive blast clean the surface to NACE No.2/SSPC-SP 10 near-white metal, ISO 8501 Sa 2.5.

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

## Application Procedures

FC-556H High Molecular Weight Epoxy shall be applied to blasted steel surfaces using plural component spray equipment such as an **ICAT 2001** or equivalent. The ratio of the pump shall be 3 parts A (Base) to 1 part B (Curing Agent).

FC-556H High Molecular Weight Epoxy Base (Part A) shall be preheated to a temperature of no less than 50C/130F 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 70C/160F upon application.

FC-556H High Molecular Weight Epoxy 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 30C/85F. 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 meters (55 yards) 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 meters (5.5 yards) 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 0.023 inches and a maximum of 0.040 inches

## Repair Procedure

Repairs to the 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 **FC-556H High Molecular Weight Epoxy 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.

## Handling and Safety Precautions

Read and understand all Health hazard, Precautionary, and First Aid statements found in the Material Safety Data Sheet (MSDS) prior to handling or use.

## ORDERING INFORMATION

For additional information, application assistance, prices, or to place an order, contact your **IAT** sales representative.

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