

COATINGS AND ANTI CORROSION ENGINEERING REVIEW

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The importance of having
a coatings maintenance plan



Interview

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Technical Feature

**Characterization of selectively
electroplated components**

Cortec's VpCI®-371 coating: Innovative corrosion protection that reduces manufacturing costs!

With the VpCI®-371 coating, Cortec's (cortecoatings.com) protection rivals the corrosion resistance of stainless steel while significantly reducing material costs, notes a press release from the company.

VpCI®-371 is a high temperature aluminum solvent-borne silicone coating that provides excellent corrosion resistance on metal substrates. It will dry tack free to 5B hardness in about 20 minutes at room temperature and will achieve 9H hardness after heating. This is an ideal coating for applications that will reach high temperatures because the coating is heat stable to 1200°F with



Cortec's VpCI®-371 is a high temperature aluminum solvent-borne silicone coating that provides excellent corrosion resistance on metal substrates.

prolonged heat resistance from 400 - 1200°F.

VpCI®-371 turned out to be just the high temperature coating a manufacturer of oil coolers was looking for as it tried to reduce the high cost of using stainless steel while maintaining corrosion resistance, notes the press release. The company manufactures hundreds of oil coolers for a major producer of heavy equipment. When carbon steel oil coolers had been used inside the heavy equipment, corrosion was found at the six-month preventative maintenance check. Because of this, the manufacturer had to use more expensive stainless steel to

make oil coolers that would resist corrosion. However, the manufacturer wondered if a high-temperature protective coating from Cortec® would allow them to make carbon steel oil coolers that would resist corrosion as well.

To examine the prospect, oil coolers manufactured out of carbon steel were internally coated with VpCI®-371 and sent to the field for testing. At the six-month preventative maintenance check, no corrosion was found on the oil coolers. The heavy equipment customer agreed to specify carbon steel and VpCI®-371 as the materials for making future oil coolers to install in their heavy equipment. This resulted in a significant cost reduction to the oil cooler manufacturer, who was now able to use a cost effective material to create oil coolers that would not corrode.

With the successful replacement of VpCI®-371-coated carbon steel for stainless steel, Cortec® looks forward to the discovery of other applications where VpCI® can help manufacturers reduce costs while still providing excellent corrosion protection.

TQC Cross Cut Adhesion Test Kit CC2000

The TQC CC2000 Cross Cut Adhesion Test Kit is used to test the adhesion of dry coats of paint on their substrate by means of a series of cuts through the coating. Two series of parallel cuts cross angled to each other to obtain a pattern of 25 or 100 similar squares. The ruled area is evaluated by using a table chart after a short treatment

EmceColor-flex protective coating for concrete

EmceColor-flex is an acrylic polymer modified elastic elastomeric breathable, anti-carbonation, crack bridging, and UV resistant protective coating for new or strained concrete surfaces, against environmental pollution, notes a press release from

resistance to diffusion of carbon dioxide and thus has anti-carbonation properties. In addition, EmceColor-flex is crack bridging, which is advantageous in case of repair and protection of cracked facades, exhibiting hairline and shrinkage



EmceColor-flex provides excellent protection for concrete subjected to adverse climatic conditions like in cooling towers, chimneys, bridges, buildings, etc.

cracks (within the region of 0.2 mm crack width). Its UV resistance ensures no fading or degradation of coating material.

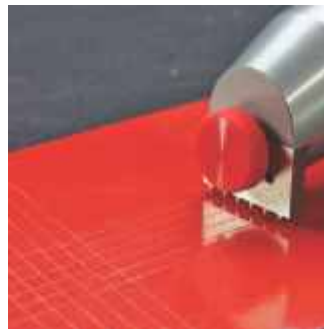
MC-Bauchemie (I) Pvt Ltd, (mc-bauchemie.com) manufacturers of this product. It is based on acrylic polymers and selected mineral fillers. Emcecolor-flex is water based and solvent free, therefore eco-friendly. It provides excellent protection for concrete subjected to adverse climatic conditions like in cooling towers, chimneys, bridges, buildings, etc., the press release notes.

The product is waterproof and has a low water vapor diffusion coefficient. This makes the coating breathable. It also has a high

EmceColor-flex can then be applied in two coats, using painting rollers, brushes or by airless spraying over a primer coat of Primex 250. More coats offer higher degree of protection and better crack bridging properties. This product is fully compatible with fully solvent free PCC system for the protection, repairs and maintenance of concrete structures. The consumption of Primex 250 is approximately 100 gm/m² and that of EmceColor-flex is approximately 425 to 450 gm/m² in two coats for a thickness of 200 - 225 microns.

with a stiff brush, or adhesive tape for hard substrates.

The cutting knife of the TQC Cross Cut Adhesion Test is easy to exchange without the



use of extra tools. The self positioning knife bracket of the TQC Cross Cut Adhesion Test ensures equal pressure on the cutting knife.

Each TQC Cross Cut Adhesion Test KIT CC2000 contains a grip with cutter, a brush, an illuminated loupe and a roll of adhesive tape accessory.

Knives and tape can be ordered as a spare as well.

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