Elcometer 138/2 Surface Contamination Kit

Can be used in accordance with:
AS 3894.6-A, AS 3894.6-D, SSPC Guide 15

Measuring the level of contaminants on a surface prior to application of the coating is essential to ensure the quality of the coating and that its optimum lifetime is achieved. If the coating is applied to a contaminated surface, which is not properly prepared, it could fail prematurely resulting in costly recoating and high maintenance costs. The Elcometer 138/2 Surface Contamination Kit provides the user with a means for testing invisible surface contaminants including:

- pH
- chloride ions
- iron
- salts

Chloride Test Strips

Chloride ions on a steel surface increase the probability that corrosion of the steel will take place even if a protective coating is applied. Chloride ions trapped under a coating in the presence of steel and moisture will form a corrosion cell. This corrosion process will result in premature failure of the protective coating and may cause blistering of coatings in immersion service.

The chloride test strips will indicate the concentration of chloride ions in the sample solution and if the area of sample collection and the volume of water is known the concentration can be measured in parts per million or micrograms per millilitre.

Iron Test Strips

Ferrous ions are an indicator of the corrosion of steel as they are formed when the iron oxidises as a result of a corrosion cell formed between the steel and oxygen in the presence of water. The ferrous ion test strips will also indicate the concentration of ferrous ions in a sample solution in the same way as the chloride strips.

pH Test Strips

These strips will determine if a solution or surface is acid or alkaline in nature. Acids form when certain gases are dissolved in water, for example chlorine in water produces hydrochloric acid, carbon dioxide in water produces carbonic acid, sulphur dioxide in water produces sulphuric acid all of which are corrosive to steel.

The presence of these contaminants can either be detected in a solution washed from the surface or by putting a wet pH Test Strip on to the dry surface. pH does not measure the concentration, but it does indicate how acidic or alkaline the surface is. Alkaline surfaces are normally associated with either concrete surfaces that are to be coated or steel re-enforcement bars buried in concrete.

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Technical Specifications

Part Number	Description
E138----2	Elcometer 138/2 Surface Contamination Kit
Measuring Range	pH:0pH to 14pH
	Iron: 3 - 10 - 25 - 50 - 100 - 250 - 500mg/l Fe^2
	Chloride: 30-600µg/cm^2 (30ppm) Cl to 600µg/cm^2 (600ppm) Cl
Dimensions	300 x 220 x 75mm
Weight	2.1kg

Packing List

Elcometer 135C Bresle Test Patch x 50
pH Test Strips x 100
Iron Test Strips x 100
Chloride Test Strips x 40, Syringes
5ml x 3
Needles (Blunt) x 3
Plastic Beaker 30ml
Transit Case
User Guide

Accessories

Part Number	Description	Certificate
E135----C25	Elcometer 135C Bresle Test Patch (box of 25)[1]	•
E135----C100	Elcometer 135C Bresle Test Patch (box of 100)[1]	•
E135----B	Elcometer 135B Bresle Patch, Pack of 25	
T13818517	3 x 5ml Syringes	
T13818518	3 x Needles	
T13818519	Plastic Beaker, 30ml	
T13827259	Pure Distilled Water, 250ml	
T13820562	100 x pH Test Strips	
T13820563	100 x Iron Test Strips	
T13820564	40 x Chloride Test Strips	

• Certificate of Cleanliness & Test Area available to download
1 Elcometer 135C Bresle Test Patches are available with your logo, contact BAMR for more information.