

# Elcometer 1120/4 Cyclic Salt Spray Tester – BS2



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**At a glance**

- *Enhanced version of the Elcometer 1120.*
- *Pre-programmed tests.*
- *Built in programming module to create specific test procedures.*

**Elcometer 1120/4 Cyclic Salt Spray Tester – BS2**

The Elcometer 1120 BS2 Cyclic Salt Spray Tester extends the performance of the Elcometer 1120 BS1 Salt Spray Tester, increasing the investigation capability.

Thanks to the built-in programming module, specific test procedures can be created by alternating and repeating different exposure phases:

- Solution spray, Dry or saturated humidity, and Dwell time at a given temperature

The combination of these essential parameters is intended to bring to traditional methods valuable complementary information.

Besides this operating flexibility, the Elcometer 1120/4 offers effective versatility by also including preprogrammed tests such as:

- Salt Spray, Copper Acetic Salt Spray (CASS), Prohesion, and Cyclic DIN

The Elcometer 1120/4 is available in 400 litres (105 US gallons) capacity.

**Corrosion**

One of the many tests described in International Standards for evaluating the corrosion performance of a material is the long-established salt spray test.

Developed several decades ago with the aim of simulating a corrosive marine environment, the procedure has, over the years, become a key tool for predicting the performance of a coating and is now one of the standard references used by industry today.

Modern quality demands and new research have shown that the results of these tests can be optimised when the salt spray is combined with other methods, which may be of a cyclical nature or more aggressive.

Can be used in accordance with:	
ASTM B 117	ASTM B 287
ASTM B 368	ASTM G 85
BS 5466	BS 3900 F4
BS 7479	DIN 50907
DIN 53167	DIN 50021
ECCA T 8	EN 4.4.9 175
ISO 1456	ISO 3768
ISO 7253	ISO 9227
JIS Z 2371	NF DIN EN ISO 4623
NF X 41-002	SIS 184190

<b>Standard Equipment</b>	
<b>Exposure Chamber</b>	Reinforced glass fibre polyester – cover in translucent plexiglass
<b>Brine Tank</b>	Contents 200 litre (53 US Gallons) – integrated filter – level indicator in the cabinet
<b>Saturator</b>	Insulated, with safety valve and level indicator. Demineralized water supply
<b>Supply Systems</b>	Brine: Adjustable flow peristaltic pump, low level control with alarm. Automatic Stop after 72 hours without refilling Saturator: Electronic level regulator and electromagnetic valve.
<b>Control Panel</b>	Microprocessor control. Automatic control of all essential functions and run of the tests
<b>Heating Systems</b>	Chamber: Heating textile fixed to the exterior. PID temperature control from ambient to 50°C (122°F). Safety device and alarm. Independent thermal switch. Saturator: Resistance heater in stainless steel. PID temperature control from ambient to 70°C (158°F). Safety device and alarm, refilling-dependent.
<b>Pneumatic System</b>	Compressed air distribution cock with filter, pressure regulator and manometer. Pressure supplied to the spray nozzle by electromagnetic valve.
<b>Operating Pressures</b>	Saturator demineralised water supply - Min: 2 bar (29 PSI); Max: 5 bar (72.5 PSI) Compressed air supply – Minimum: 2 bar (29 PSI); Max: 8 bar (116 PSI)
<b>Exhaust Outlet</b>	Independent outlet from the condensation drain
<b>Drying</b>	Drying – for dry humidity – is achieved by an air blower, variable temperature from ambient to 60°C (140°F)
<b>Additional Spray Circuit</b>	For saturated humidity – with a peristaltic pump, which uses demineralised water from user's installation
<b>Working Modes</b>	Pre-programmed tests: Salt Spray; CASS; Prohesion, Cyclic DIN Cyclic mode, programmable: integrated into the internal operating software Programmes set up via control panel or with PC Software (optional accessory)
<b>Programmable Parameters</b>	Temperature: Chamber: ambient to 60°C (140°F) Saturator: ambient to 70°C (158°F) Drying: Ambient to 60°C (140°F) Duration of Solution Spray – Drying – Saturated Humidity – Dwell – Ventillation Loop: Maximum 99 per step.
<b>Memory</b>	Each Programme contents: up to 19 steps; Memory Capacity: 8 programmes  2 additional programmes - predefined in the factory with user's parameters – these can't be modified later.
<b>Tests Operation</b>	Pre-programmed or cyclic tests can be started and interrupted at any time. Control, regulation, safety and alarm functions as for the Elcometer 1120 Salt Spray Tester

Model	Description	Part Number		
		UK 240V	EUR 220V	US 110V
Elcometer 1120/4	Elcometer 1120/4 Cyclic Salt Spray Tester	K0UK1120M004	K0001120M004	K0US1120M004
<b>Options –</b> <i>please specify when ordering</i>	Software for programming the PC, including RS232 interface			KT001120N019
	Compressed Air Mixer – for stirring Brine Salt Solution			KT001120N017
	Automatic Stop when compressed air cuts off			KT001120N010
<b>Accessories</b>	PVC Test Panel Support Rack - up to 22 test panels (100 x 200mm / 39 x 79"), 5 supports can be placed inside			KT001150P012
	Assembly of 10 PVC Test Panel Support Rack with central holder for spray nozzle. Each rack can place up to 20 test panels (100 x 200mm / 39 x 79"), between 15° and 20°			KT001150P158
	P6 Demineralizer for tap water, plus 2 resin cartridges			KT001120N014
	100ml Rain Gauge			KT001120N002
	Sodium Chloride Refractometer – for condensate analysis			KT001120N006

## Related products



Elcometer 1120

The Elcometer 1120 salt spray chamber is designed to perform, with high reproducibility, a large number of standardised or conventional tests in order to determine the resistance to corrosion for a wide range of coatings. These include salt spray, copper acetic salt spray (CASS), prohesion, humidity and cyclic DIN.



Elcometer 1250

The Kesternich chamber is a bench instrument which is designed to test the resistance to corrosive gases such as sulphur dioxide or carbon dioxide. Housed in reinforced polyester for corrosion resistance, samples can be placed into the chamber from a side opening door.



Elcometer 1535

During the development of a coating not only do a wide range of physical properties need to be measured, but also a large number of tests need to be carried out in order to establish the most appropriate coating for the specific requirement. Many of the tests can be done using this automated tester, including: St Andrews Cross, Cross Hatch Adhesion, Scratch Test & Coin Test.



Elcometer 1537

A scratching tool for preparing samples for Salt Spray and Cyclical Tests. The Elcometer 1537 has a tungsten carbide blade which is set to give a 90° cutting angle with a 75° cutting edge.



Elcometer 1538

The Elcometer 1538 has interchangeable carbide cutters for the preparation of specimens to be used for Salt Spray and CASS Corrosion Tests. Supplied complete with a 1mm or 0.5mm cutter. A Renault-version of the tool, with optional blade adjustment device, is also available.



Elcometer 1542

Simple but effective method for determining the adhesion of a large variety of coatings. The instrument is ideal for testing the adhesion of thin coatings on flat surfaces using the cross cut method, available with three different spacings 1, 2, and 3mm, corresponding to the thickness of layer to be tested.

### ENGLAND

Elcometer Instruments Ltd  
Edge Lane  
Manchester M43 6BU

Tel: +44 (0) 161 371 6000  
Fax: +44 (0) 161 371 6010  
e-mail: sales@elcometer.com  
www.elcometer.com

### USA

Elcometer Instruments Inc  
1893 Rochester Industrial Drive  
Rochester Hills Michigan 48309

Tel: +1 248 650 0500  
Toll free: 800 521 0635  
Fax: +1 248 650 0501  
e-mail: inc@elcometer.com  
www.elcometer.com

### CANADA

Elcometer Canada Ltd  
PO Box 622, 401 Ouelette Avenue  
Windsor, Ontario N9A 6N4

Tel: +1 248 650 0500  
Toll Free: 800 521 0635  
Fax: +1 248 650 0501  
e-mail: ca\_info@elcometer.com  
www.elcometer.com

### ASIA & THE FAR EAST

Elcometer (Asia) Pte Ltd  
896 Dunearn Rd  
Sime Darby Centre #3-09  
Singapore 589472,  
Republic of Singapore

Tel: +65 6462 2822  
Fax: +65 6462 2860  
e-mail: asia@elcometer.com  
www.elcometer.com

### BELGIUM

Elcometer SPRL  
Rue Vallée 13  
B-4681 Hermalle /s Ardenteau

Tel: +32 (0)4 379 96 10  
Fax: +32 (0)4 374 06 03  
e-mail: be\_info@elcometer.be  
www.elcometer.be

### FRANCE

Elcometer SARL  
BP 8-Bou  
60 Rue de la Petite Levée  
45430 Chécy

Tel: +33 (0)2 38 86 33 44  
Fax: +33 (0)2 38 91 37 66  
e-mail: fr\_info@elcometer.fr  
www.elcometer.fr

### GERMANY

Elcometer Instruments GmbH  
Himmlingstraße 18  
D-73434 Aalen

Tel: +49 (0) 7366 91 92 83  
Fax: +49 (0) 7366 91 92 86  
e-mail: de\_info@elcometer.de  
www.elcometer.de