

# OXILYSER

## DIGITAL PASSIVITY METER

Rotterdam  
The Netherlands

### **Passivity tester for checking passivity of Stainless Steel**

The corrosion resistance of stainless steels depends on the quality of a very thin oxide layer, the so called 'passive layer'. Maintaining this passive layer is one of the most important aspects in maintaining the quality of stainless steel. Damage of the passive layer, in time, will cause severe corrosion. Therefore preserving the passive layer is a must. With the Oxilyser you measure passivity fast and accurately. Besides a 0-100 passivity scale, a LED (green/red) will indicate passivity or not. The Oxilyser helps you to avoid corrosion problems.

#### **PRINCIPLE**

The principle of the Oxilyser is based upon measuring the restpotential of the stainless steel surface combined with a sophisticated algorithm for evaluation. The electrolyte is a non toxic organic acid and filterpaper strips function as electrolyte bearer.

This method is the most direct way for measuring passivity. The scale of the LCD display is divided into 100 units. Passivity of three stainless steel groups can be measured:

1. 0% Molybdenum (AISI 304, 321, 304L, Wst. Nr. 1.4301, 1.4541, etcetera).
2. 2% Molybdenum (AISI 316, 316L, 316Ti, Wst. Nr. 1.4404, 1.4571, etcetera).
3. Duplex stainless and 6% Mo steel such as Wst. Nr. 1.4462, duplex 2205, duplex 2507, 254 SMO and 1943 hMo.

Traces of free iron can also be indicated with the Oxilyser and are being indicated directly by causing a very low LCD value. For specific free iron determination our Ferroxy Test Kit can be used.



#### **APPLICATIONS**

- Checking effectivity of pickling and passivating treatment.
- Checking effectivity of rinse treatment
- Checking passivity after unloading tanks with aggressive fluids like acids and orange juice.
- Checking passivity after cleaning/rinsing, e.g. stainless steel storage tanks, transport tanks (shipping, industry, trucks, etcetera).

#### **ADVANTAGES/ SPECIFICATIONS**

- The Oxilyser replaces the palladium chloride test as it is a more reliable standard for passivity testing.
- Direct measurement, built in algorithm for passivity testing.
- Objective result on LCD display. Scale 0 (active) to 100 (fully passive).
- Passive or not LED passivity indication for three stainless steel groups.
- Shockproof Epoxy Double Bridge Ag/AgCl2 reference electrode. Gel filled, this makes measuring "up side down" possible.
- Measuring procedure fits into QA/QC procedures (ISO 9001, 9002, etcetera).
- Impedance resistance > 10 MΩ. Test procedure for reference has been included.

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