

**TQC MACHU TEST**

VF8700

MANUAL

**1 NOTE**

The general use of the waterbath is described in the supplied booklet. The use of the waterbath to perform a Machu Test with, is described in the manual you now have in front of you.

**2 STANDARDS**

**Qualicoat** and **QIB** specifications. (Qualitätsgemeinschaft für Industriebeschichtung).

Look up the appropriate standard for a correct execution of the test

**3 WHAT'S IN THE BOX?**

Machu Test Bath (11 litres), inclusive SST top lid and perforated base plate and plastic container (4 litres)

**4 PREPARATIONS: FLUID COMPOSITION**

Composition A for aluminum and steel:	NaCl	: 50 +- 1g/l
	CH <sub>3</sub> COOH (glacial)	: 10 +- 1 ml/l
	H <sub>2</sub> O <sub>2</sub> (30%)	: 5 +- 1 ml/l
	Temperature	: 37° +- 1° C
	Test time	: 48 +- 0,5 hour

The pH of the liquid is 3.0 – 3.3.

Composition B for coated zinc steel or sendzimir	NaCl	: 50 +- 1g/l
	H <sub>2</sub> O <sub>2</sub> (30%)	: 10 +- 1 ml/l

The pH of the liquid is 6.0.

After 24 hour a 5 ml/l hydrogen peroxide H<sub>2</sub>O<sub>2</sub> (30%) solution is added and the pH value is adjusted with glacial or caustic soda.

**Note!**

- For each new test a fresh amount of test solution has to be made.
- The proposed liquids are less suited for stainless steel (304, 316 and duplex SST) products due to the high pitting potential. This is initiated by the high salt amount combined with the hydrogen peroxide. Therefore NEVER put the test solution, or any other solution in the bath itself. Always use a plastic container instead.



## 5 METHOD OF USE

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1. The (powder)coated norm sized test panels or partial construction test pieces are scratched with 1mm X-cross (Andreas) cut up till the blank base substrate.
2. The scratched panels are totally submerged in the solution A or B of 37°C in the plastic container.
3. Close the lid on the plastic container to prevent contamination with the liquid in the water bath.
4. The water bath is filled with water up till the level in the plastic container.
5. The plastic container is placed in the water bath and warmed Au Bain Marie like.
6. The pieces under test are left for 24 hours in the solution
7. After 24 hours the panels are washed with fresh water and dried.
8. For examination carefully peel away the loose parts of coating layer along the edges of the X cross with a Stanley knife. The dimensions of the largest undermined areas, measured from cutting edge to undermining is measured and recorded.  
Specs Qualicoat: < 0,5mm both sides of cutting.  
Specs. GSB:  $d_{max} \leq 1\text{mm}$

## 6 SAFETY PRECAUTIONS

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- Always make sure the instrument is connected to an earthed electric socket.
- Always make sure the instrument's power is turned off while adjusting any electric component
- NEVER put the test solution/any other solution in the bath itself. Always use a plastic container instead.

## 7 DISCLAIMER

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The right of technical modifications is reserved.

The information given in this manual is not intended to be exhaustive and any person using the product for any purpose other than that specifically recommended in this manual without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. Whilst we endeavour to ensure that all advice we give about the product (whether in this manual or otherwise) is correct we have no control over either the quality or condition of the product or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability whatsoever or howsoever arising for the performance of the product or for any loss or damage (other than death or personal injury resulting from our negligence) arising out of the use of the product. The information contained in this manual is liable to modification from time to time in the light of experience and our policy of continuous product development.