

TQC MACHU TEST BATH

VF8700

DATASHEET

PRODUCT DESCRIPTION

TQC Machu test, accelerated corrosion test on test panels and construction parts according to Qualicoat specifications.

The test is made in a warm environment. To create this the test panels are placed in the container, which is placed in the Machu Test Bath.

The test panels need to be scratched crosswise with a 1mm cutting tool before placing them in the warm moisture test chamber. The fluid content, temperature and remain time are specified.

**BUSINESS**

Coating inspection and quality control in certified laboratories

STANDARDS

Qualicoat and **QIB** specifications. (Qualitätsgemeinschaft für Industriebeschichtung)
Look up the appropriate standard for a correct execution of the test.

SCOPE OF SUPPLY

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

ACCESSORIES

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|------------------------|---|
| VF8600 | TQC Machu Scratching Tool Basic (type CC2000) |
| VF8605 | TQC Machu Scratching Tool Professional (CC3000) |
| VF8620 | Spare Plastic box for test panels |
| VF8625 | Test panel holder for Machu bath 11 litres |

SPECIFICATIONS

Bath inner dimensions	302x240x150 mm / inch 11.9x9.5x5.9
Bath outer dimensions	338x280x260 mm / inch 13.3x11x10.2
Bath Capacity	11 liters
Heating capacity	1000W
Temperature	+ 5 ° C to 100 ° C / 41 ° F to 212 ° F
Temperature accuracy	+/- 0.1 ° C
Temperature sensor	PT100
Controls	Jog shuttle dial (turn - push)
Display	LCD display with illumination
Timer	99hours and 59 minutes on and off delay
Protection	Overheating protection and overvoltage protection
Material bath	Stainless steel
Material housing	Powder coated stainless steel
Lid	Stainless Steel
Other	Lock function Memory for temperature and delay times Warning tone at sensor error and off delay
Power supply	230 VAC 50/60 Hz

METHOD OF USE

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. They are totally submerged in the solution A or B of 37°C in the plastic container. Close the lid on the plastic container to prevent contamination with the liquid in the water bath. The water bath is filled with water up till the level in the plastic container. The plastic container is placed in the water bath and warmed Au Bain Marie like. The pieces under test are left for 24 hours in the solution, then washed with fresh water and dried.

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: $d_{max} \leq 1\text{mm}$

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.

FLUID COMPOSITION

Composition A for aluminum and steel

- NaCl : 50 +- 1g/l
- CH₃COOH (glacial) : 10 +- 1 ml/l
- H₂O₂(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
- H₂O₂(30%) : 10 +- 1 ml/l
- The pH of the liquid is 6.0.

After 24 hour a 5 ml/l hydrogen peroxide H₂O₂(30%) solution is added and the pH value is adjusted with glacial (CH₃COOH) or caustic soda.

SAFETY PRECAUTIONS

- 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.

DISCLAIMER

The right of technical modifications is reserved.

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