



Dr. Prepper

ACADEMY

Will the Bristle Blaster® remove salts?

In this 4th edition of Dr. Prepper we share with you the results of certain chlorides testing conducted by MTEST. MTEST (MontiPower® Test Equipment and Speciality Tools) provides quality control instruments for coating inspection, non-destructive testing and welding inspection equipment. The office of MTEST is located in Houston, Texas, with a broad geographical footprint. MTEST is an active member of the Houston Coating Society.

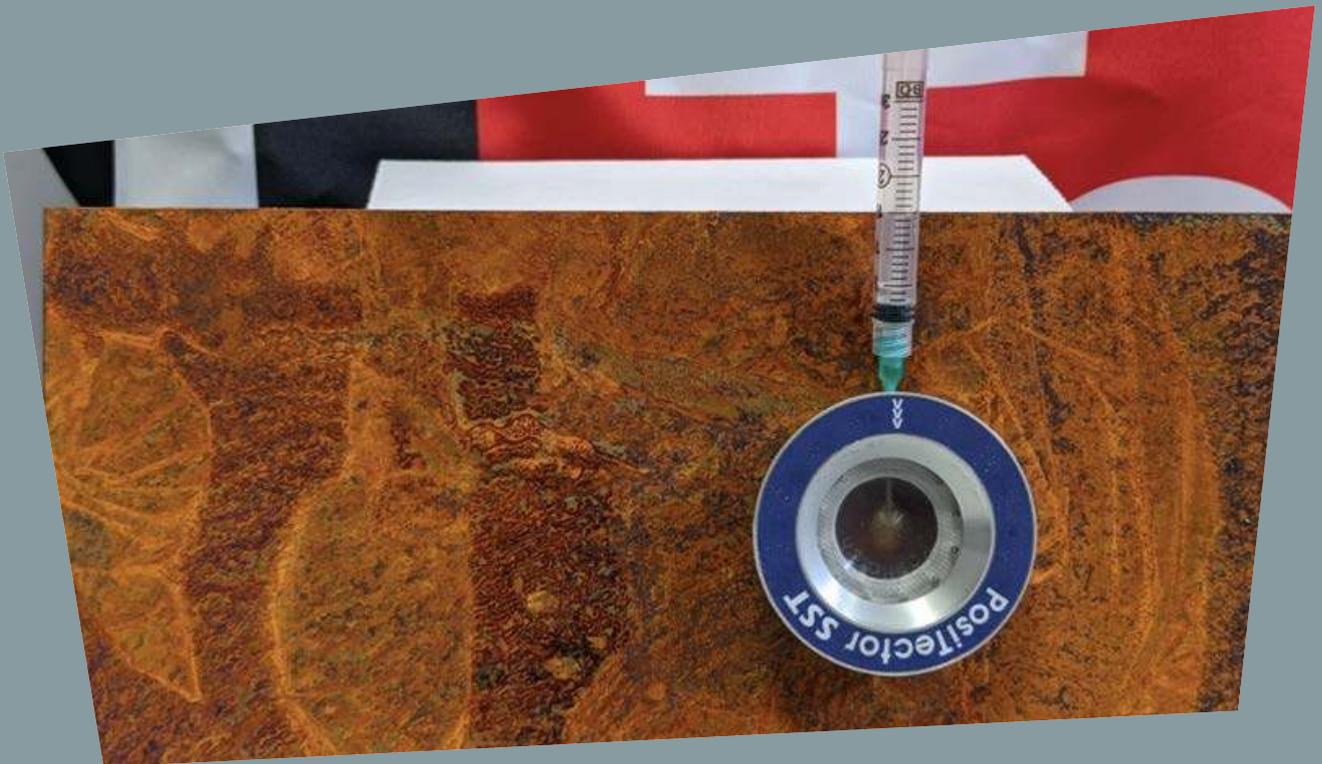
The question we wanted to answer while conducting this test: Will the Bristle Blaster® remove salts?

No. 4
Paper edition

1. **BASELINE** **PANELS**



MTEST took three panels, salted them with sodium chloride, wet them with water, and left them outside for two weeks. They then took a test on the rust and as expected the salt readings were high.



THE AVERAGE READINGS WERE AS FOLLOWS:

TOTAL SALT: 115.7 $\mu\text{g}/\text{cm}^2$

TOTAL CHLORIDES: 36 $\mu\text{g}/\text{cm}^2$



2. BRISTLE BLASTING

One of the panels was blasted solely using the Bristle Blaster®. A second panel was blasted by a Bristle Blaster® after splashing deionized water on the surface. A third panel was blasted by a Bristle Blaster® after splashing a surfactant on the surface. The panels were then left to sit for 24 hours before verifying their condition for rust.

ONLY BRISTLE BLASTING

Using only the Bristle Blaster®, MTEST found:

TOTAL SALTS: 5–12 $\mu\text{g}/\text{cm}^2$

TOTAL CHLORIDES: 3–5 $\mu\text{g}/\text{cm}^2$

There were small patches of rust that appeared within a *24 hour* period.

BRISTLE BLASTING WITH DEIONIZED WATER

Using the Bristle Blaster® after pouring 3ml of deionized water on the surface, MTEST found:

TOTAL SALTS: 1–2 $\mu\text{g}/\text{cm}^2$

TOTAL CHLORIDES: 1 $\mu\text{g}/\text{cm}^2$

There were small patches of rust that appeared within a *24 hour* period.

BRISTLE BLASTING WITH SURFACTANT

Using the Bristle Blaster® after pouring a 3ml surfactant mixture on the surface, MTEST found:

TOTAL SALTS: 1 $\mu\text{g}/\text{cm}^2$

TOTAL CHLORIDES: 0 $\mu\text{g}/\text{cm}^2$

There was no rust on the surface for a *48 hour* period.



3.

CONCLUSIONS:

BRISTLE BLASTING

THERE IS NO QUESTION THAT THE BRISTLE BLASTER® DOES AN EXCELLENT JOB AT REMOVING SALTS.

Testing shows that the Bristle Blaster® itself removes a significant amount of surface salts, but when used with water or even better a surfactant mixture surface salts can be reduced even further to trace amounts only.

WARNING: *This was a very limited study. This study was done on rusted panels where much of the salt was tied up in the rust layer and there was no comparison to abrasive blasting. The only salt was sodium chloride.*



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MontiPower - Part of Monti Group
MONTI - Werkzeuge GmbH
Reisertstr. 21 | 53773 Hennef | Germany
T +49 (0) 2242 9090 630
info@montipower.com
www.montipower.com