

Test Instructions

Ferroxyl Test Solution with Nitric Acid

This ferroxyl test kit for free iron is a hypersensitive test and should be used when even the traces of free iron or iron oxide might be objectionable. The test can be used on stainless steel to detect iron contamination from sources including, but not limited to, iron-tool marks, residual iron salts from pickling solutions, iron dust, atmospheric exposure, iron deposits in welds, embedded iron and iron oxide.

Follow instruction mentioned on the ASTM standards for passivation of stainless steel if it is required by the test protocols. For ASTM standard test instructions see on the section 18.3, 18.4, 18.5 of ASTM standard A967-05.The ASTM-967-05 can be found at https://www.galvanizeit.com/uploads/resources/astm-a-967.pdf

For the general tests on the stainless steel surface, follow the following instructions.

- 1. Prepare the solution following the instructions provided on the Mixing Instructions.
- 2. Moisten a filter paper with this solution (5 10 drops) using a dropper and place this filter paper on the surface to be tested (filter paper and dropper are not included in this kit).
- 3. Wait for 30 seconds.
- 4. If a blue coloration appears on the filter paper then the test is positive and is an evidence of presence of metallic iron.
- 5. If no blue color appears on the filter paper then the test is negative and it is the indication of free of iron on the surface.
- 6. For the negative test, wash the tested surface with distilled water to remove all the traces of test solution.
- 7. For the positive test, the blue stains can be removed with a solution of 10% acetic acid and 8% oxalic acid followed by a thorough rinse of distilled water.

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