

Ferroxyl Test Kit for free IRON

Part/Order no:

Rxsol-60-5527-001

Ferroxyl Test Kit for free IRON:-

This test kit is specially designed to test of PICKLED stainless steel or to test of presence of embedded iron in the steel surface. Use the "ferroxyl test." Spray the surface with a solution of potassium ferricyanide. If free iron is present, a blue color will appear. This test is extremely sensitive and often gives false positive results, that is, it gives an indication of iron being present when it really is not. The ferroxyl solution must be made fresh each day.

Both the copper sulfate and the ferroxyl tests are described in ASTM A380.

It is a very highly sensitive & hazardous test and should be used only when traces of free iron or iron oxide is "objectionable". Personnel familiar with its limitations and hazards should only be permitted to use this test method.

Application:-

It consists of two solutions, TK-F1 & TK-F2,

Mix Solution TK-F1 & TK-F2 1:1. which contain nitric acid and potassium ferricyanide. The potassium ferricyanide can emit lethal fumes if it is exposed to concentrated acids, or heated to decomposition. The mixed solutions are combined before use as the mixture has an active shelf-life of approximately 24 hours.)

1st option : A filter paper is soaked with the mix solution and applied to the surface to be checked. After a reaction time of 30-60 seconds, ferrite residues, which are on the surface, will give a blue result if when iron is present.

2nd option : Alternatively, this mixture can be sprayed by atomizer spray over the area to be tested, and inhalation of this spray should be avoided.

Important note:-

- The tested surface has to be cleaned immediately after with de-ionised water.
- Highly trained personnel should only be permitted to perform this test.
- Residues of pickling products will also show a blue colour.

Note:-

It is not recommended for use on products destined for use in food, medical or pharmaceutical unless complete removal of the cyanide solution can be guaranteed. An alternative is our Passivity test kit which will give a red/pink result when in contact with Iron. The chemicals used in the passivity test are not hazardous.

Carbon steel will only contaminate the stainless steel if the passive layer of chromium is destroyed. Very few fabricators have the capability to fabricate in an operating room environment. There are many ways to remove free iron and free iron oxides by using for example, Antox 75E (a phosphoric acid solution).

A ferroxyl test is a test done only to "detect" contamination. Once contamination is detected, then a removal procedure is carried out.

