Copper Sulphate Passivation Kit

This kit comprises of a 60 ml Dropper Bottle of Copper Sulphate Test for the purpose to verify effectiveness of different stainless steel substrate passivation. It can be used to determine passivation requirements for various substrates of austenitic stainless steel in the 200 and 300 series. It can be applied to precipitation hardened stainless steel and ferritic 400 series 16% chromium or more in the ferritic-chromium alloy. **This test is not recommended for chromium content less than 16%** in ferritic 400 series or martensitic 400 series (chromium and carbon). It creates a positive indication, which is a "false failure". This test is not recommended for laser marked areas.

The purpose of this copper sulphate test is to determine the presence of free iron ions (Fe^{+}) on the surface of the stainless steel substrate. Often in manufacturing free iron ions (cations) are transferred on the stainless steel surface. The test principle is based on the oxidation-reduction reactions, which occurs when dissolved copper ions deposit/plate onto locations of free iron particles (ions). A copper colour on the metal substrate (brown or pinkish, like a penny) indicates presence of iron ions, which is a test failure.

Features/Benefits

- Completely water-soluble.
- Easy to use
- Economical single step system.
- Liquid material for ease of use.
- Meets ASTM A967, ASTM A380, ASTM B912, ASTM F1089, AMS 2700 and MIL-STD-753

Operating Conditions

Concentration	RTU by volume
Temperature	Ambient to 20 ºC (Ambient to 68 ºF)
Time	6 minutes or more

The test solution is applied to the surface, applying additional solution if needed to keep the surface wet for at least 6 minutes or more. At the end of this period, the surface shall be carefully rinsed, dried with care taken not to disturb copper deposits if present. If no copper deposit is exhibited or visible to the naked eye the passivation is successful.

The data and statements contained in this bulletin are based on testing information and are believed to be accurate and reliable. This bulletin is not a Guarantee or Warranty, express or implied regarding the products use. The product is sold on the condition that the purchaser will do their own tests to determine the suitability of the product in a particular application.

READ THE SDS BEFORE USING THIS PRODUCT

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