3007150

Technical chart

Last revision
04/07/2012

FAST TARNISH TEST KIT

[L: a: b: c:]

Product description

The Fast Tarnish Test Kit (FTT) is a fast and simple method for the tarnish resistance evaluation of silver or low carat items. Pieces are dip in a potassium sulfide solution for 2-4 minutes. At the end of the test, tarnish sensitive items will appear markedly discolored: the higher the tarnish sensitivity, the more severe will result the color change.

Recommended applications

This test can be done every time you want a fast answer on tarnish resistant of silver or low carat or passivated items.

Operating data

	Range	Optimum
Immersion time [min]	2-4	3
Operating temperature [°C]	20-30	25

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Additional informations

FAST TARNISH KIT (FTT)

The FTT test is particularly indicated to evaluate the tarnish resistance properties of chemically passivated and coated samples. It is advised to confirm FTT results by submitting pieces also to the hydrogen sulfide test according to the ISO4538 standard (Thioacetamide or TAA test). The FTT tests does not provide any information about resistance to other chemical compounds or physical factors which may cause tarnishing phenomena (i.e.: active chlorine, chlorides, UV rays, etc.). The FTT test should be always be run together with a reference sample (i.e.: standard sterling silver Ag925/Cu75). Once prepared, the K_2S solution should be used within one hour.

PROCEDURE

(It is recommended to run the test under a suction hood or an air suction system)

1. Pour the amount of one K2S (potassium sulfide) bottle in the plastic beaker;
2. Fill with pure water (possibly demineralized water) to a final volume of 200 ml. Mix until potassium sulfide is completely dissolved;
3. Dip the testing sample and the reference sample (hanged with a nylon wire), gently swirling for 2-4 minutes or until the reference sterling silver sample will be completely discolored;
4. Remove samples from the solution. Rinse throughly with water. Dry by gently blotting the pieces with adsorbing paper and with a hair dryer.

RESULTS EVALUATION

Based upon the final color, tarnish resistance can be rated according to the following table:

Reference sample (standard Sterling silver) final color: brown/blue

Testing sample final color	Tarnish resistance rating
Silvery white	Very high
light yellow	High
Rich yellow	Good
Light brown	Fair
Dark brown	Poor
Blue	Very poor

REMARK:

For some samples (i.e.: chemically passivated items, some type of alloys), the discoloration may occour through a gray shade. Evaluation will be carried out according to a grayscale.
WARNING: potassium sulfide is a corrosive and toxic compound for the envirnment; discharge it after use as a special waste. For more detailed information please see the Material Safety Data Sheet.

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