

KES

Standard of Nitric-hydrofluoric Acid Test for Stainless Steel

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Additional Rule

1. Scope of application

This standard shall regulate testing method of corrosion according to standard sample and corrosive ratio. For this, corrosion of stainless steel of molybdenite austenite in 70 °C-10 % nitric acid and 3 % hydrofluoric acid shall be measured.

2. Purpose

The purpose of this standard is to acquire repeatable test result from nitric-hydrofluoric acid method among many test method of stainless steel.

3. Test method

- (1) Use 500 ml plastic container that is not eroded by nitric hydrofluoric acid.
- (2) Use appropriate plastic support for test sample that can prop it in test solution.
- (3) Use constant temperature vessel that can keep the test solution at 70 °C.

4. Test sample

4.1 Preparation of test sample

4.1.1 Surface area of test sample is 10 ~ 30 cm². Take sample so that cross section is perpendicularly cut from rolled or forged direction and it is less than half of total surface area.

Follow each regulation for cast steel and other steel.

4.1.2 Principally saw the sample from raw material. Cut the cross section and grind for finishing. By these processes, remove parts affected by shear.

4.1.3 If scale is attached on the test sample, remove it by cutting or grinding.

4.1.4 Grind test sample with number 120 or higher in KS L 6002 (Grind clothing) or KS L 6003 (Grinding paper) in dry condition, or grind test sample with number 80 or