

SEAL TEST FOR ANODISED ALUMINUM

Application

This test method is used to determine whether an anodic coating on aluminum has been properly sealed. This method is applicable to steam sealed anodized aluminum.

Apparatus and Reagents Required

Dye Test Solution

Dissolve 10 g Aluminum Green (Aluminium Grün GLW) in 1 litre of distilled water. The dye is sulphur dioxide (SO₂) stabilised and, therefore, the solution must be freshly prepared for each test. The dye solution must only be used once.

The solid dye can be stored in cans, bottles or air tight plastic bags.

Source: Messrs. Durand and Hugenin A.G.
Basle, Switzerland

Nitric Acid

40 % by weight.

Perchlorethylene

Ethyl Alcohol

Distilled Water

Soft Brush and Cotton Plugs

Conditioning and Test Conditions

All test values indicated herein are based on material conditioned in a controlled atmosphere of 23 +/- 2 °C and 50 +/- 5 % relative humidity for not less than 24 h prior to testing and tested under the same conditions unless otherwise specified.

Date	Action	Revisions
2000 11 09		Editorial – no technical change A. Cockman
1994 02 28		

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Procedure

1. Clean anodic film with perchlorethylene and then wash with a cotton plug soaked with the alcohol.
2. Dip in the nitric acid for 30 minutes at 21 - 25 °C.
3. Rinse thoroughly in running tap water and then with distilled water.
4. Dip for 15 minutes in the freshly prepared dye test solution at 50 +/- 2 °C.
5. Wash with tap water, rub surface with a soft brush and allow to dry at 23 +/- 2 °C.

Evaluation

Examine anodic coating for evidence of poor sealing which is indicated by the intensity of green colour on the surface.

Chemicals, materials, parts, and equipment referenced in this document must be used and handled properly. Each party is responsible for determining proper use and handling in its facilities.