

Standard tests for aluminium tubes and cartridges

At specified intervals and for specified quantities the points listed below are tested and documented according to the applicable international standards, customer specifications, standard tests of H. Obrist & Co. AG and Defect Evaluation List for Tubes made of Aluminium (Editio Cantor Verlag volume 39):

1. Components

Conformity of the used materials (aluminium, internal protective varnish, external enamel, printing inks, end sealant, wax, tube caps, packaging etc.)

2. Tubes/Cartridges

- 2.1 Dimensions according to EN 13046 (Standard for dimensions and tolerances) or customer drawing
- 2.2 Sealing properties according to EN 12377 (Test method for the air tightness of closures)
- 2.3 Penetration of membrane*
- 2.4 Softness of tube wall according to DIN 55436-2 (Determination of the deformability of the tube body)

3. Inner protective lacquer

- 3.1 Coating thickness
- 3.2 Electrical conductivity test according to EN 15384 (Test method to determine the porosity of the internal coating)
- 3.3 Adhesion and flexibility according to EN 15421 (Determination of the adhesion of the internal and external protective lacquering)
- 3.4 Ammonia resistance according to EN 15653 (Test method to check the resistance of the internal protective coating against ammonia)*
- 3.5 Stove-enamel colour compared to boundary samples
- 3.6 Cartridge cleanly washed*

4. External lacquer and print

- 4.1 Coating thickness
- 4.2 Adhesion and flexibility according to EN 15421 (Determination of the adhesion of the internal and external protective lacquering)
- 4.3 Comparison of colours with proof samples or colour chart
- 4.4 Completeness of text, position, code and cleanliness
- 4.5 Testing of the decoration for resistance to contents*
- 4.6 Bar code print quality according to ISO/IEC 15416 or Data Matrix (2D) ISO/IEC 15415 *

5. Closure, end sealant, wax

- 5.1 Position of closure, plastic thread ring* , tamper-free-evidence band*
- 5.2 Closure sealing*
- 5.3 End sealant or Wax application, position, size and quantity*

6. General

- 6.1 Aspects/cleanliness
- 6.2 Labelling

7. Special Tests

Customer-specific tests (e.g. stability of filling material, sterilization ability of lacquers etc.) are only carried out upon request and separate agreement

Tests from positions 1 to 6 are standard tests of H. Obrist & Co. AG and are carried out with all tubes or cartridges provided all components and/or items are available and relevant for the product in question (marked*).

All test data is documented and available on demand.

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