



Update of QUALICOAT Specifications 2022

Update Sheet No. 06

applicable from 1 January 2023

Subject: Pretreatment testing programme (samples)

Proposals/Requests:

- 1) Laboratories WG (5 and 6 April 2022)
There is currently no possibility to obtain the material from QUALICOAT, due to this reason the sentence should be deleted.
- 2) Further process clarifications as verified separately with JS, MP & RH 27.07.2022

QUALICOAT Resolution:

For proposal No. 1:
Resolution No. 14/ TC 2022-05-20
The TC agreed that the sentence 'QUALICOAT shall provide every laboratory with enough test samples [...]' should be removed from Appendix A6. The Specifications WG should prepare an update sheet.

Amendment to the Specifications: Appendix A6, section 5a

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Approved by: Executive Committee

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A6 – Approval of chemical pretreatments

[...]

5. TESTING PROGRAMME

Approval is based on the following testing programme to ensure conformity with the requirements prescribed by QUALICOAT.

a) PANEL PREPARATION

For every corrosion test, six extruded samples shall be evaluated (three samples in each of the two laboratories involved). Special attention shall be paid to the preparation of samples. The final results of corrosion and exposure tests depend not only on the treatment but also on the aluminium composition and the reaction between the aluminium surface and chemical products.

The chemical manufacturers shall indicate the complete pretreatment cycle to be used (degreasing etc.), and the laboratory responsible for preparing the samples shall strictly follow these instructions.

Products intended for dual use need to be tested both ways. This implies that all tests must be done in duplicate, namely once with and once without the rinse pretreatment step.

The samples may be prepared:

- either in the QUALICOAT approved laboratory under the supervision of a representative of the applicant company;
- or in the laboratory of the chemical manufacturer under the supervision of a representative of the laboratory in charge.

Samples

The following alloys shall be used:

- panels for mechanical tests (thickness of 0.8 or 1 mm): **AA 5005-H24 or -H14** (AlMg 1 - semihard);
- extruded samples for corrosion tests and outdoor exposure: **AA 6060 or 6063**.

The chemical composition of the samples has an influence on the final results, especially in corrosion tests. For this reason, all laboratories shall use an alloy from the same batch to prepare the samples.

~~QUALICOAT shall provide every laboratory with enough test samples having a chemical composition specified by the Technical Committee.~~

The laboratory's final report shall always indicate the chemical composition.

Pretreatment

The laboratory in charge of preparing the samples shall take into account the following parameters:

- **Etching degree**
The **total** etching degree shall be between 1.0 g/m² and 2.0 g/m² on samples for all tests.
- **Weight of the conversion coating**
 - close to the system's lower limit for corrosion test samples;
 - close to the upper limit for mechanical test samples, especially for the adhesion test.

Anodic pretreatment

~~if~~ A pretreatment system shall be tested both ways if it is proposed to be used in combination with pre-anodised substrates, namely once with and once without the anodic pretreatment process. The necessary test samples shall be prepared according to the requirements specified by QUALICOAT in section 3.4. After this, the proposed pretreatment shall be applied to the pre-anodised panels as specified by the chemical supplier of the pretreatment system.

For identification, chemical pretreatment systems shall be listed with A-No. in the list of approved pretreatment systems and with AP-No. in case of pre-anodised material.

~~A specific numbering system shall be applied to these anodic pretreatment processes.~~

[...]