

## 1. Material

Profile material EN AW-6060 [AlMgSi] or EN-AW-6063 [AlMg0,7Si]

- Temper T6 or T66,
- Minimum length 100 mm
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Standard test sheet 70x140x0.7mm, EN AW-5005 H12 [AlMg1 (B)]

The material used for the sample may only be used once.

The use of profile sections from orders in progress is preferred.

## 2. Procedure

### 2.1 Specimen Preparation

- a.) Cleaning of the surface by wiping it with acetone or isopropanol.
- b.) Weighing of the specimens with an analytical balance (accuracy 0.1 mg) to four decimal places.

### 2.2 Treatment of Samples

The specimens have to be treated under production conditions. Depending on the pre-treatment unit, the specimens should be removed from the production process (dip pre-treatment / spray plant) as follows:

- Removal of the specimen before chromating / alternative pre-treatment
- or**
- Removal of the specimen before the adhesive-water dryer
  - Removal of the chromate layer / passivation by pickling the conversion coating (65 % nitric acid, specific gravity 1.4 g/cm<sup>2</sup>, duration 5 to 10 minutes, temperature 25° C).

#### 2.2.1 Determination of the Etching Rate

- a.) Drying of the specimen at 80° C
- b.) Weighing of the sample with an analytical balance to four decimal places.
- c.) Calculation of the metal loss (weight loss / effective surface area of specimen)

## 3. Documentation

The results of the determination of the etching rate should be documented chronologically, preferably together with the documentation of the daily analyses.

Regardless of this, the following minimum documentation is required:

- Date of the test, if applicable with the time
- Determination of the weight with / without the chromate layer / passivation
- Etching rate
- Specimen material