2. Test Methods and Requirements

The anodized aluminium products of an anodizer holding a QUALANOD licence shall conform to the requirements for visible defects, coating thickness, sealing quality, abrasion resistance and light fastness as described in sections 2.1, 2.2, 2.3, 2.4 and 2.5 respectively.

2.1. Appearance and colour (according to EN 12373-1)

This section specifies the requirements for visible defects and how appearance and colour shall be assessed.

2.1.1 Visible defects

Anodized articles shall be free from visible defects on the significant surface(s) when viewed from a distance to be agreed between the interested parties. In the absence of such an agreement, the following minimum distances shall apply: 5 m for external architectural applications; 3 m for internal architectural applications; 0.5 m for decorative applications. If requested by the customer, the position(s) and maximum size(s) of the contact mark(s) shall be agreed between the anodizer and the customer.

2.1.2 Surface texture

The comparative assessment of appearance should be carried out visually or, for production control purposes, by using an instrumental method if it is possible.

Anodized aluminium has the property of double reflection from the surfaces of the anodic film and the basis metal. Therefore, for a comparative visual assessment, samples or components shall be set in the same plane and viewed as near to normal as is practicable with the direction of working (eg the rolling, extrusion or machining direction) always the same. They shall be viewed from a minimum distance as specified in 2.1.1.

Where the products are going to be used under natural lighting conditions, unless otherwise agreed, samples or components shall be compared in diffuse daylight from a northerly aspect in the northern hemisphere. If the products are to be used in artificial light, this lighting shall be used for the comparison, and a diffuse source of illumination shall be placed above and behind the viewer.

For surface texture, instrumental measurement shall be performed in accordance with the requirements of EN 12373-11, -12, -13 or -14 depending on the finish of the product. It is important to be attentive to any dependence of measuring on sample orientation (working direction), and to set operating procedures accordingly. For example, specular gloss should be measured by placing the sample in contact with the instrument so that the plane of incidence and reflection is parallel to the working direction of the metal.

2.2. Thickness measurement

This section specifies how coating thickness shall be measured and the requirements for thickness classes.