

Surface Treatment



OPALISING

Opalising is a special type of anodising. The result is a hard, wear-resistant, exceptionally smooth layer with a distinctive decorative character (opal colour). The layer thickness varies – depending on the base material – from 5 to 20 µm. The hardness is 500 to 700 MHV. The aluminium layer obtained electro-chemically grows partly on the base material, but also grows to some extent within the base material. The low external layer growth (approx. 15%) and the slight layer thickness makes this layer extremely suitable for dimensional application. The great difference compared to other types of anodising is that it does not harm the surface (there is no roughening of the surface). Opalised layers may be sealed upon request. Sealing closes off the layer and ensures optimal resistance to corrosion. If hardness is a number one consideration, sealing does not normally take place. Only lightly alloyed aluminium is suitable for opalising.

Advantages of opalising

- The surface is not harmed (no surface roughening), so that extremely smooth layers are possible without any further processing.
- Dimensions are hardly affected, so that opalising can be applied neutrally from a dimensional point of view and variations can be avoided.
- Extremely wear-resistant layer.
- Sealed layers offer optimal protection against corrosion.

Applications

Slide bearings, air bearing surfaces, moulds (non-adhesive qualities), etc.

Approvals

ASML