Marking

Marking of Clear Anodised Aluminium

The pulse control offered by our range of redENERGY Pulsed Fiber Lasers can be used to create a sub surface black mark on clear anodised aluminium.

Many parts are increasingly supplied with a simple clear anodised layer and this can pose a problem in getting good contrast for marking. Conventional engraving techniques whereby the anodised layer is removed, reveals a white or silvery grey aluminium base material that can be difficult to see. By careful pulse parameter selection using our waveforms and processing conditions, a range of dark marks can be made with significantly increased contrast.

The surface of these dark marks can be from smooth to lightly textured to give a “leatherette” finish that is different to a standard engraved mark. These marks are highly dependent of the aluminium grades and the types of anodised coating used and optimised process conditions need to be identified. Once the conditions are identified they are highly repeatable and production ready.

This marking regime can also be used to create a range of marks from white through grey tones to black. Improved quality can be achieved with our redENERGY Z-type Lasers.

Application Parameters

Type	G4 20W EP-Z
Power	20W
M^2	1.6
Beam Ø	8.1mm
Scanner/Lens	10mm aperture / 163mm F - theta
Energy	WF31 (3ns)