



NSAI
Standards

Irish Standard
I.S. EN 16602-70-03:2014

Space product assurance - Black-anodizing of metals with inorganic dyes

I.S. EN 16602-70-03:2014

Incorporating amendments/corrigenda/National Annexes issued since publication:

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Space product assurance - Black-anodizing of metals with inorganic dyes

Assurance produit des projets spatiaux - Anodisation noire
des métaux avec colorants non organiques

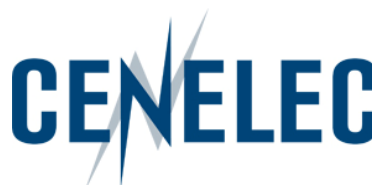
Raumfahrtproduktsicherung - Schwarzes anodisieren von
Metallen mit anorganischen Farben

This European Standard was approved by CEN on 20 March 2014.

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Foreword

This document (EN 16602-70-03:2014) has been prepared by Technical Committee CEN/CLC/TC 5 "Space", the secretariat of which is held by DIN.

This standard (EN 16602-70-03:2014) originates from ECSS-Q-ST-70-03C.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 2015, and conflicting national standards shall be withdrawn at the latest by April 2015..

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Introduction

Passive thermal control systems onboard spacecraft are often based on the thermo-optical properties of the surfaces, namely emissivity and absorbance. The ratio of these two properties defines the equilibrium temperature of the surface. This Standard provides requirements for black-anodizing surface treatment applied on metallic surfaces to achieve an emissivity versus absorbance ratio close to unity, as requested for many applications.

1 Scope

This Standard defines requirements for measurements and verifications to guarantee that an anodized coating is adequate for the intended application. The requirements set by this Standard ensure high reliability of surface treatments intended to withstand normal terrestrial conditions and environment loads imposed on spacecraft and associated equipment where surfaces require high solar absorptance, high emittance, high optical blackness, or a combination of these properties.

This standard may be tailored for the specific characteristics and constraints of a space project, in conformance with ECSS-S-ST-00.

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