
Kalmar Group Standard

KGS 50517

Part

Method Standards

Name

Surface treatment - Requirements - Chemical nickel-plating

Group

Manufacturing Methods

1 Scope

This Kalmar Group Standard, hereinafter referred to as KGS, presents the manufacturing requirements for inorganic surface treatment, valid for chemical nickel-plating.

2 Purpose

The purpose is to ensure high quality surface treatment for the specific manufacturing method.

3 Responsibilities

Design Engineers - when applicable, note the relevant information on the technical documents such as drawings and BOMs

Sourcing - for the purpose of informing relevant suppliers about this KGS.

Supplier Development Engineers - to inform suppliers about updates to this KGS and make sure that compliance is met.

4 Definitions

BOM - Bill of Material

5 References

ISO 1456 Metallic and other inorganic coatings – Electrodeposited coatings of nickel, [...]

ISO 4527 Metallic coatings – Autocatalytic (electroless) nickel-phosphorus alloy [...]

ISO 2819 Metallic coatings on metallic substrates – Electrodeposited and chemically [...]

6 Manufacturing requirements

The process of the surface treatment shall follow ISO 1456 and ISO 4527.

6.1 Appearance

Matt to a half bright appearance. For Kalmar matt to semi-bright mechanically polished surface is valid.

There are two coating thicknesses to choose:

- 30 µm - normal protection against corrosion in lubricated environments
- 50 µm - protection against corrosion on exposed and unlubricated dry surfaces

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6.2 Surface

The following coating defects are not allowed:

- blisters
- pits
- roughness
- cracks
- unplated areas

6.3 Adhesion

The adhesion of the coating may not show any tendency to peel or flake off. For testing the adhesion, the "Peel test" referred to in ISO 2819 or similar test method shall be used.

6.4 Coating thickness

Minimum coating thickness in μm according to designation on drawing.