
Vezni elementi - Mehanske lastnosti veznih elementov iz nerjavnega jekla - 3. del: Navojni zatiči (in podobni vijaki, natezno neobremenjeni) z določenimi ocenami in razredi trdote (ISO/DIS 3506-3:2023)

Fasteners - Mechanical properties of corrosion resistant stainless steel fasteners - Part 3: Set screws (and similar fasteners not under tensile stress) with specified grades and hardness classes (ISO/DIS 3506-3:2023)

Mechanische Verbindungselemente - Eigenschaften von Verbindungselementen aus nichtrostenden Stählen - Teil 3: Gewindestifte und ähnliche nicht auf Zug beanspruchte Verbindungselemente (ISO/DIS 3506-3:2023)

Fixations - Caractéristiques mécaniques des fixations en acier inoxydable résistant à la corrosion - Partie 3: Vis sans tête (et fixations similaires non soumises à des contraintes de traction) de grades et classes de dureté spécifiées (ISO/DIS 3506-3:2023)

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ICS:

21.060.10	Sorniki, vijaki, stebelni vijaki	Bolts, screws, studs
77.140.20	Visokokakovostna jekla	Stainless steels

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Fasteners — Mechanical properties of corrosion resistant stainless steel fasteners —

Part 3:

Set screws (and similar fasteners not under tensile stress) with specified grades and hardness classes

ICS: 21.060.10

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Introduction

The properties of stainless steel fasteners result from the chemical composition of the material (especially corrosion resistance) and from the mechanical properties due to the manufacturing processes. Austenitic and duplex (austenitic-ferritic) stainless steel fasteners are generally manufactured by cold working; they consequently do not have homogeneous local material properties when compared to quenched and tempered fasteners.

Austenitic-ferritic stainless steels referred to as duplex stainless steel grades were originally invented in the 1930s and have been increasingly used since the 1980s. This document was revised to reflect their standardization for fasteners.

All duplex stainless steel grades show improved resistance to stress corrosion cracking compared to the commonly used A2 to A5 austenitic grades. Most duplex grades also show higher levels of pitting corrosion resistance, where D2 matches at least A2 and where D4 matches at least A4.

Complementary detailed explanations about stainless steel grades and properties are specified in ISO 3506-6.

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