ICS 25.220.10 SLOVENSKA TECHNICKA NORMA Apríl 2021

STN	**Príprava oceľových podkladov pred nanesením náterových látok a podobných výrobkov Vizuálne posudzovanie čistoty povrchu Časť 4: Začiatočný stav povrchu, stupne prípravy povrchu a stupne korózie v spojení s použitím vysokotlakového vodného lúča (ISO 8501-4: 2020)**	**STN EN ISO 8501-4** 03 8223

Preparation of steel substrates before application of paints and related products - Visual assessment of surface cleanliness - Part 4: Initial surface conditions, preparation grades and flash rust grades in connection with water jetting (ISO 8501-4: 2020)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 03/21

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Obsahuje: EN ISO 8501-4: 2020, ISO 8501-4: 2020

Oznámením tejto normy sa ruší
STN EN ISO 8501-4 (03 8223) z júna 2007

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 8501-4

October 2020

ICS 25.220.10 Supersedes EN ISO 8501-4:2006

English Version

Preparation of steel substrates before application of paints and related products - Visual assessment of surface cleanliness - Part 4: Initial surface conditions, preparation grades and flash rust grades in connection with water jetting (ISO 8501-4:2020)

Préparation des subjectiles d'acier avant application de peintures et de produits assimilés - Évaluation visuelle de la propreté d'un subjectile - Partie 4: États de surface initiaux, degrés de préparation et degrés de fleurette de rouille après décapage à l'eau sous haute pression (ISO 8501-4:2020)

Vorbereitung von Stahloberflächen vor dem Auftragen von Beschichtungsstoffen - Visuelle Beurteilung der Oberflächenreinheit - Teil 4: Ausgangszustände, Vorbereitungsgrade und Flugrostgrade in Verbindung mit Hochdruck-Wasserwaschen (ISO 8501-4:2020)

This European Standard was approved by CEN on 25 July 2020.

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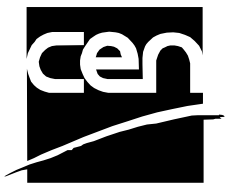

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN ISO 8501-4:2020) has been prepared by Technical Committee ISO/TC 35 "Paints and varnishes" in collaboration with Technical Committee CEN/TC 139 “Paints and varnishes” the secretariat of which is held by DIN.

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 2021, and conflicting national standards shall be withdrawn at the latest by April 2021.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 8501-4:2006.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 8501-4:2020 has been approved by CEN as EN ISO 8501-4:2020 without any modification.

INTERNATIONAL STANDARD

ISO 8501-4

Second edition
2020-10

Preparation of steel substrates before application of paints and related products — Visual assessment of surface cleanliness —

Part 4: Initial surface conditions, preparation grades and flash rust grades in connection with water jetting

Préparation des subjectiles d'acier avant application de peintures et de produits assimilés — Évaluation visuelle de la propreté d'un subjectile —

Partie 4: États de surface initiaux, degrés de préparation et degrés de fleurette de rouille après décapage à l'eau sous haute pression

Reference number
ISO 8501-4:2020(E)

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 35, *Paints and varnishes*, Subcommittee SC 12, *Preparation of steel substrates before application of paints and related products*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 139, *Paints and varnishes*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 8501-4:2006), which has been technically revised.

The main changes compared to the previous edition are as follows:

— the definitions of preparation grades have been clarified;

— the definition of Wa3 has been added;

— descriptive notes have been added to Table 2;

— photos showing Wa3 have been added;

— photos for grade C steel have been replaced;

— photos for zinc silicate primer have been replaced.

A list of all parts in the ISO 8501 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

The performance of protective coatings of paint and related products applied to steel is significantly affected by the state of the steel surface immediately prior to painting. The principal factors that are known to influence this performance are

a) the presence of rust, mill scale and previous coatings,

b) the presence of surface contaminants, including salts, dust, oils and greases, and

c) the surface roughness.

ISO 8501, ISO 8502 and ISO 8503 have been prepared to provide methods of assessing these factors, while ISO 4628-3 provides guidance on evaluating the degradation of paint coatings by assessing the degree of rusting.

ISO 8501, ISO 8502 and ISO 8503 do not contain provisions on the protective systems to be applied to the steel surface. Neither do they contain provisions on the preparation grades for specific situations even though surface quality can have a direct influence on the choice of protective coating to be applied and on its performance. Such provisions are found in other documents such as national standards and codes of practice. It will be necessary for the users of ISO 8501, ISO 8502 and ISO 8503 to ensure that the surface qualities specified are

— compatible and appropriate both for the environmental conditions to which the steel will be exposed and for the protective coating system to be used;

— compatible with any previous coatings remaining after cleaning;

— within the capability of the cleaning procedure specified.

ISO 8501, ISO 8502 and ISO 8503 deal with aspects of preparation of steel substrates before application of paints and related products.

— The ISO 8501 series is on the visual assessment of surface cleanliness;

— The ISO 8502 series concerns tests for the assessment of surface cleanliness;

— The ISO 8503 series deals with surface roughness characteristics of blast-cleaned steel substrates.

For coatings likely to be exposed to severe environments, such as water immersion and continuous condensation conditions, the assessment of visual cleanliness is supplemented with the physical and chemical methods of the ISO 8502 series and the roughness characteristics of the ISO 8503 series.

This document identifies

— five initial surface conditions, three of them applicable to degraded paint coatings and two of them to damaged pre-fabrication (shop) primer coatings,

— four preparation grades for each initial surface condition, after partial or full removal of previous paint coatings by high-pressure water jetting, and

— three flash rust grades after pre-treatment by high-pressure water jetting.

This document is intended to be a tool for the visual assessment of initial surface conditions, preparation grades and flash rust grades in connection with high-pressure water jetting. It includes 28 representative photographic examples.

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Photographs for deteriorated coating DC C and deteriorated primer DP Z are reproduced by permission of Lydia Frenzel, Advisory Council, 620 SE 168th Ave. # 103, Vancouver, WA 98684 USA.

Photographs for flash rust FR L, FR M and FR H are reproduced by permission of International Paint Ltd., Akzo Nobel, Stoneygate Lane, Felling, Gateshead, Tyne & Wear, UK.

INTERNATIONAL STANDARD **ISO 8501-4:2020(E)**

Preparation of steel substrates before application of paints and related products — Visual assessment of surface cleanliness —

Part 4:
Initial surface conditions, preparation grades and flash rust grades in connection with water jetting

WARNING — The reference photographs represented in this document can be neither viewed on screen nor printed as true representations. It is important that only the photographs contained in officially printed versions of this document, purchased from ISO or from ISO member bodies or their distributors, are used when carrying out assessments.

1 Scope

This document specifies a series of preparation grades for steel surfaces after removal/partial removal of water-soluble contaminants, rust, previous paint coatings and other foreign matter by high-pressure water jetting. The various grades are defined by written descriptions together with photographs that are representative examples within the tolerances for each grade as described in words.

This document specifies both initial surface conditions and after-cleaning flash rust grades, also defined by written descriptions together with representative photographic examples.

This document applies the cleanliness of the surface to its visual appearance.

Consideration in addition to visual appearance is given to invisible contaminants and roughness or profile. Physical and chemical methods for testing for soluble salts and other invisible contaminants on the visually clean surface are found in the ISO 8502 series. The roughness or profile characteristics of the surface are found in the ISO 8503 series.

2 Normative references

Tere are no normative references in this document.

