

# SLOVENSKI STANDARD

## SIST EN ISO 12944-4:2018

01-februar-2018

Nadomešča:

SIST EN ISO 12944-4:1998

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**Barve in laki - Protikorozijska zaščita jeklenih konstrukcij z zaščitnimi premaznimi sistemi - 4. del: Vrste površine in priprava površine (ISO 12944-4:2017)**

Paints and varnishes - Corrosion protection of steel structures by protective paint systems - Part 4: Types of surface and surface preparation (ISO 12944-4:2017)

Beschichtungsstoffe - Korrosionsschutz von Stahlbauten durch Beschichtungssysteme - Teil 4: Arten von Oberflächen und Oberflächenvorbereitung (ISO 12944-4:2017)

Peintures et vernis - Anticorrosion des structures en acier par systèmes de peinture - Partie 4: Types de surface et de préparation de surface (ISO 12944-4:2017)

**Ta slovenski standard je istoveten z: EN ISO 12944-4:2017**

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**ICS:**

25.220.10	Priprava površine	Surface preparation
87.040	Barve in laki	Paints and varnishes
91.080.13	Jeklene konstrukcije	Steel structures

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**en,fr,de**

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EUROPEAN STANDARD

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NORME EUROPÉENNE

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December 2017

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Supersedes EN ISO 12944-4:1998

English Version

## Paints and varnishes - Corrosion protection of steel structures by protective paint systems - Part 4: Types of surface and surface preparation (ISO 12944-4:2017)

Peintures et vernis - Anticorrosion des structures en acier par systèmes de peinture - Partie 4: Types de surface et de préparation de surface (ISO 12944-4:2017)

Beschichtungsstoffe - Korrosionsschutz von Stahlbauten durch Beschichtungssysteme - Teil 4: Arten von Oberflächen und Oberflächenvorbereitung (ISO 12944-4:2017)

This European Standard was approved by CEN on 30 October 2017.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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EUROPÄISCHES KOMITEE FÜR NORMUNG

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

<b>Contents</b>	<b>Page</b>
<b>European foreword.....</b>	<b>3</b>

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[SIST EN ISO 12944-4:2018](https://standards.iteh.ai/catalog/standards/sist/65f67f71-9d92-4337-af9b-44cc4f03888e/sist-en-iso-12944-4-2018)  
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## European foreword

This document (EN ISO 12944-4:2017) 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 June 2018, and conflicting national standards shall be withdrawn at the latest by June 2018.

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.

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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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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INTERNATIONAL  
STANDARD

ISO  
12944-4

Second edition  
2017-11

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**Paints and varnishes — Corrosion  
protection of steel structures by  
protective paint systems —**

Part 4:  
**Types of surface and surface  
preparation**

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*Peintures et vernis — Anticorrosion des structures en acier par  
systèmes de peinture —*

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Ch. de Blandonnet 8 • CP 401  
CH-1214 Vernier, Geneva, Switzerland  
Tel. +41 22 749 01 11  
Fax +41 22 749 09 47  
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www.iso.org



# Contents

Page

<b>Foreword</b> .....	<b>v</b>
<b>Introduction</b> .....	<b>vi</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>2</b>
<b>4 General</b> .....	<b>4</b>
<b>5 Types of surface to be prepared</b> .....	<b>4</b>
5.1 General.....	4
5.2 Uncoated surfaces.....	4
5.3 Metal-coated surfaces.....	4
5.3.1 Thermally sprayed surfaces.....	4
5.3.2 Hot-dip-galvanized surfaces.....	4
5.3.3 Zinc-electroplated surfaces.....	4
5.3.4 Sherardized surfaces.....	5
5.4 Surfaces painted with prefabrication primer.....	5
5.5 Other painted surfaces.....	5
5.6 Surfaces with chemical treatment.....	5
<b>6 Surface preparation methods</b> .....	<b>5</b>
6.1 General.....	5
6.2 Water, solvent and chemical cleaning.....	5
6.2.1 Water cleaning.....	5
6.2.2 Steam cleaning.....	5
6.2.3 Emulsion cleaning.....	6
6.2.4 Alkaline cleaning.....	6
6.2.5 Organic-solvent cleaning.....	6
6.2.6 Stripping.....	6
6.2.7 Acid pickling.....	6
6.2.8 Chemical treatment.....	6
6.3 Mechanical cleaning.....	6
6.3.1 Hand-tool cleaning.....	6
6.3.2 Power-tool cleaning.....	6
6.3.3 Blast-cleaning.....	7
6.3.4 Water jetting.....	8
<b>7 Surface preparation grades</b> .....	<b>8</b>
7.1 General.....	8
7.2 Uncoated surfaces.....	9
7.3 Metal-coated surfaces.....	9
7.4 Surfaces painted with prefabrication primer.....	9
7.5 Other painted surfaces.....	9
<b>8 Surface profile (roughness) and surface profile grading</b> .....	<b>10</b>
<b>9 Assessment of prepared surfaces</b> .....	<b>10</b>
<b>10 Temporary protection of prepared surfaces from corrosion and/or contamination</b> .....	<b>10</b>
<b>11 Preparation of temporarily or partly protected surfaces before application of further coatings</b> .....	<b>10</b>
<b>12 Preparation of hot-dip-galvanized surfaces</b> .....	<b>11</b>
12.1 Unweathered surfaces.....	11
12.2 Weathered surfaces.....	11
<b>13 Preparation of thermally sprayed metal (zinc and aluminium) surfaces</b> .....	<b>11</b>

## ISO 12944-4:2017(E)

<b>14</b>	<b>Preparation of zinc-electroplated and sherardized surfaces</b> .....	<b>11</b>
<b>15</b>	<b>Preparation of other coated surfaces</b> .....	<b>12</b>
<b>16</b>	<b>Recommendations regarding pollution and the environment</b> .....	<b>12</b>
<b>17</b>	<b>Health and safety</b> .....	<b>12</b>
<b>Annex A</b>	<b>(normative) Standard preparation grades for primary (overall) surface preparation</b> .....	<b>13</b>
<b>Annex B</b>	<b>(normative) Standard preparation grades for secondary (partial) surface preparation</b> ..	<b>15</b>
<b>Annex C</b>	<b>(informative) Procedures for removal of extraneous layers and foreign matter, native layers and contaminants</b> .....	<b>17</b>
<b>Bibliography</b>	.....	<b>19</b>

## iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN ISO 12944-4:2018](https://standards.iteh.ai/catalog/standards/sist/65f67f71-9d92-4337-af9b-44cc4f03888e/sist-en-iso-12944-4-2018)

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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](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

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For an explanation on 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 the following URL: [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 35, *Paints and varnishes*, Subcommittee SC 14, *Protective paint systems for steel structures*.

This second edition cancels and replaces the first edition (ISO 12944-4:1998), which has been technically revised.

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

- the terms and definitions which were not used in the main part of the standard have been deleted;
- the normative references have been updated;
- [5.6](#) “Surfaces with chemical treatment” has been included;
- [6.2.8](#) “Chemical treatment” has been included;
- [Annex C](#) has been restructured to contain two tables for distinction between “extraneous layers and foreign matter” and “native layers and contaminants”;
- the bibliography has been updated;
- the text has been editorially revised.

A list of all parts in the ISO 12944 series can be found on the ISO website.

## ISO 12944-4:2017(E)

### Introduction

Unprotected steel in the atmosphere, in water and in soil is subjected to corrosion that can lead to damage. Therefore, to avoid corrosion damage, steel structures are normally protected to withstand the corrosion stresses to which they will be subjected during the service life required of the structure.

There are different ways of protecting steel structures from corrosion. ISO 12944 (all parts) deals with protection by paint systems and covers, in the various parts, all features that are important in achieving adequate corrosion protection. Additional or other measures are possible but require particular agreement between the interested parties.

In order to ensure effective corrosion protection of steel structures, owners of such structures, planners, consultants, companies carrying out corrosion protection work, inspectors of protective coatings and manufacturers of coating materials need to have at their disposal state-of-the-art information in concise form on corrosion protection by paint systems. It is vital that such information is as complete as possible, unambiguous and easily understandable to avoid difficulties and misunderstandings between the parties concerned with the practical implementation of protection work.

ISO 12944 (all parts) is intended to give this information in the form of a series of instructions. It is written for those who have some technical knowledge. It is also assumed that the user of ISO 12944 (all parts) is familiar with other relevant International Standards, in particular those dealing with surface preparation.

Although ISO 12944 (all parts) does not deal with financial and contractual questions, attention is drawn to the fact that, because of the considerable implications of inadequate corrosion protection, non-compliance with requirements and recommendations given in ISO 12944 (all parts) can result in serious financial consequences.

ISO 12944-1 defines the overall scope of ISO 12944. It gives some basic terms and definitions and a general introduction to the other parts of ISO 12944. Furthermore, it includes a general statement on health, safety and environmental protection, and guidelines for using ISO 12944 (all parts) for a given project.

This document describes the different types of surface to be protected and gives information on surface preparation methods such as chemical and mechanical cleaning. It deals with surface preparation grades, surface profile (roughness), assessment of prepared surfaces, temporary protection of prepared surfaces, preparation of temporarily protected surfaces for further coatings, preparation of existing metal coatings, and environmental aspects. As far as possible, reference is made to the basic International Standards on the surface preparation of steel substrates before application of paints and related products.