

SLOVENSKI STANDARD
oSIST prEN ISO 12944-7:2016
01-april-2016

Barve in laki - Korozijska zaščita jeklenih konstrukcij z zaščitnimi premaznimi sistemi - 7. del: Izvedba in nadzor protikorozijske zaščite (ISO/DIS 12944-7:2016)

Paints and varnishes - Corrosion protection of steel structures by protective coating systems - Part 7: Execution and supervision of paint work (ISO/DIS 12944-7:2016)

Beschichtungsstoffe - Korrosionsschutz von Stahlbauten durch Beschichtungssysteme - Teil 7: Ausführung und Überwachung der Beschichtungsarbeiten (ISO/DIS 12944-7:2016)

Peintures et vernis - Anticorrosion des structures en acier par systèmes de revêtement - Partie 7: Exécution et surveillance des travaux de peinture (ISO/DIS 12944-7:2016)

Ta slovenski standard je istoveten z: prEN ISO 12944-7

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| 87.020 | Postopki za nanašanje barvnih premazov | Paint coating processes |
| 91.080.10 | Kovinske konstrukcije | Metal structures |

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

Part 7: Execution and supervision of paint work

*Peintures et vernis — Anticorrosion des structures en acier par systèmes de revêtement —
Partie 7: Exécution et surveillance des travaux de peinture*

ICS: 87.020

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ISO/CEN PARALLEL PROCESSING

This draft has been developed within the International Organization for Standardization (ISO), and processed under the **ISO lead** mode of collaboration as defined in the Vienna Agreement.

This draft is hereby submitted to the ISO member bodies and to the CEN member bodies for a parallel five month enquiry.

Should this draft be accepted, a final draft, established on the basis of comments received, will be submitted to a parallel two-month approval vote in ISO and formal vote in CEN.

To expedite distribution, this document is circulated as received from the committee secretariat. ISO Central Secretariat work of editing and text composition will be undertaken at publication stage.



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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 12944-7 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 12944-7:1998), which has been technically revised.

ISO 12944 consists of the following parts, under the general title *Paints and varnishes — Corrosion protection of steel structures by protective coating systems*:

- *Part 1: General introduction*
- *Part 2: Classification of environments*
- *Part 3: Design considerations*
- *Part 4: Types of surface and surface preparation*
- *Part 5: Protective paint systems*
- *Part 6: Laboratory performance test methods*
- *Part 7: Execution and supervision of paint work*
- *Part 8: Development of specifications for new work and maintenance*
- *Part 9: Protective paint systems and laboratory performance test methods for offshore and related structures*

Annex A of this part of ISO 12944 is for information only.

Introduction

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

There are different ways of protecting steel structures from corrosion. ISO 12944 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, it is necessary for owners of such structures, planners, consultants, companies carrying out corrosion protection work, inspectors of protective coatings and manufacturers of coating materials to have at their disposal state-of-the-art information in concise form on corrosion protection by paint systems. Such information has to be as complete as possible, unambiguous and easily understandable to avoid difficulties and misunderstandings between the parties concerned with the practical implementation of protection work.

This International Standard - ISO 12944 - 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 is familiar with other relevant International Standards, in particular those dealing with surface preparation, as well as relevant national regulations.

Although ISO 12944 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 this standard may result in serious financial consequences.

ISO 12944-1 defines the overall scope of all parts 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 for a given project.

This part of ISO 12944 describes how paint work on steel structures is to be executed and supervised after the surface has been prepared in accordance with ISO 12944-4. Examples of protective paint systems suitable for this purpose are given in ISO 12944-5.

Paints and varnishes — Corrosion protection of steel structures by protective coating systems — Part 7: Execution and supervision of paint work

1 Scope

This part of ISO 12944 deals with the execution and supervision of paint work on steel structures in the workshop or on site.

This part of ISO 12944 does not apply to:

- the preparation of surfaces to be painted (see ISO 12944-4) and the supervision of such work;
- the application of metallic coatings;
- pre-treatment methods such as phosphating and chromating and paint application methods such as dipping, powder coating or coil coating.

2 Normative references

ISO 1512, *Paints and varnishes – Sampling of products in liquid or paste form*

ISO 1513, *Paints and varnishes – Examination and preparation of samples for testing*

ISO 8502-4, *Preparation of steel substrates before application of paints and related products – Tests for the assessment of surface cleanliness – Part 4: Guidance on the estimation of the probability of condensation prior to paint application*

ISO 12944-1, *Paints and varnishes – Corrosion protection of steel structures by protective coating systems – Part 1: General introduction*

ISO 12944-4, *Paints and varnishes – Corrosion protection of steel structures by protective coating systems – Part 4: Types of surface and surface preparation*

ISO 19840, *Paints and varnishes — Corrosion protection of steel structures by protective paint systems — Measurement of, and acceptance criteria for, the thickness of dry films on rough surfaces*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 12944-1 and the following apply.

3.1

reference area

defined part of the structure where the coating system has been applied according to the specification and approved by all parties involved

3.2

reference specimen

object, preferably with a geometry that is representative of the structure, where the coating system has been applied according to the specification and approved by all parties involved

4 Preconditions for the execution of the paint work

4.1 Qualification

Companies contracted to apply protective paint systems to steel structures, and their personnel, shall be capable of carrying out the work properly and safely. Work requiring particular care with regard to its execution shall only be carried out by personnel having appropriate qualification.

A method statement shall be provided which shows the ability of the contractor to achieve the specified quality level at each process.

NOTE Processes in the sense of this standard are e.g. surface preparation, application of coating materials, drying and quality control.

If requested, the contractor shall provide the client with relevant execution and supervision documentation (templates).

4.2 Condition of the substrate

A protective paint system requires proper surface preparation, which depends on the initial and final condition of the surface. The respective requirements shall be specified in the painting specification and be capable of achievement.

Methods of surface preparation are described in ISO 12944-4. The prepared surfaces shall be assessed with regard to visual cleanliness, surface profile and chemical cleanliness, using the methods given in ISO 12944-4.

The requirements for the supervision of these aspects of the work, the frequency of assessment, and the location of the assessment work shall be agreed between the parties concerned.

If the condition of the surface differs from that described in the specification, the client shall be informed.

The temperature of the surface shall be without doubt above the dew point of the surrounding air, unless otherwise specified in the paint manufacturer's technical data sheet.

4.3 Health and safety and environmental protection

The applicable regulations concerning health and safety and environmental protection shall be complied with. See ISO 12944-1 and ISO 12944-8.

5 Coating materials

5.1 Supply

The coating materials shall be supplied in such a condition that they are ready for use by the application method specified at the time of ordering. Paint manufacturers' technical data sheets shall comprise all details which are necessary for their use.

If any testing is required, it shall be specified, indicating the methods to be used. Sampling and further processing of samples shall be in accordance with ISO 1512 and ISO 1513.

Any detail not included in the paint manufacturer's technical data sheet that could affect the application conditions or the final quality of the work shall be given by the manufacturer.