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**Priprava jeklenih podlag pred nanašanjem barv in sorodnih proizvodov -  
Značilnosti površinske hrapavosti peskanih jeklenih podlag - 5. del: Metoda z  
odtisnim trakom za ugotavljanje profila površine (ISO 8503-5:2003)**

Preparation of steel substrates before application of paints and related products -  
Surface roughness characteristics of blast-cleaned steel substrates - Part 5: Replica tape  
method for the determination of the surface profile (ISO 8503-5:2003)

Vorbereitung von Stahloberflächen vor dem Auftragen von Beschichtungsstoffen -  
Rauheitskenngrößen von gestrahlten Stahloberflächen. Teil 5: Abdruckverfahren zum  
Bestimmen der Rauheit (ISO 8503-5:2003)

[SIST EN ISO 8503-5:2005](https://standards.iteh.ai/catalog/standards/sist/3a9ac8d4-36df-428a-bb21-30b9a714100c/iso-8503-5-2005)

Préparation des subjectiles d'acier avant application de peintures et de produits  
assimilés - Caractéristiques de rugosité des subjectiles d'acier décapés - Partie 5:  
Méthode de l'empreinte sur ruban adhésif pour la détermination du profil de surface (ISO  
8503-5:2003)

**Ta slovenski standard je istoveten z: EN ISO 8503-5:2004**

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87.020	Postopki za nanašanje barvnih premazov	Paint coating processes

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN ISO 8503-5**

December 2004

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English version

**Preparation of steel substrates before application of paints and related products - Surface roughness characteristics of blast-cleaned steel substrates - Part 5: Replica tape method for the determination of the surface profile (ISO 8503-5:2003)**

Préparation des subjectiles d'acier avant application de peintures et de produits assimilés - Caractéristiques de rugosité des subjectiles d'acier décapés - Partie 5: Méthode de l'empreinte sur ruban adhésif pour la détermination du profil de surface (ISO 8503-5:2003)

Vorbereitung von Stahloberflächen vor dem Auftragen von Beschichtungsstoffen - Rauheitskenngößen von gestrahlten Stahloberflächen - Teil 5: Abdruckverfahren zum Bestimmen der Rauheit (ISO 8503-5:2003)

This European Standard was approved by CEN on 21 December 2004.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

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 Central Secretariat has the same status as the official versions.

<https://standards.iteh.ai/catalog/standards/sist/3a9ac8d4-36df-428a-bb21-44e8d1-309ff6-sist/8503-5-2003>

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**EN ISO 8503-5:2004 (E)****Foreword**

The text of ISO 8503-5:2003 has been prepared by Technical Committee ISO/TC 35 "Paints and varnishes" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 8503-5:2004 by 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 2005, and conflicting national standards shall be withdrawn at the latest by June 2005.

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**Endorsement notice**

The text of ISO 8503-5:2003 has been approved by CEN as EN ISO 8503-5:2004 without any modifications.

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# INTERNATIONAL STANDARD

# ISO 8503-5

First edition  
2003-07-01

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## Preparation of steel substrates before application of paints and related products — Surface roughness characteristics of blast-cleaned steel substrates —

Part 5:

### Replica tape method for the determination of the surface profile

*Préparation des subjectiles d'acier avant application de peintures et de produits assimilés — Caractéristiques de rugosité des subjectiles d'acier décapés —*

*Partie 5: Méthode de l'empreinte sur ruban adhésif pour la détermination du profil de surface*



Reference number  
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## ISO 8503-5:2003(E)

## 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 8503-5 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*.

ISO 8503 consists of the following parts, under the general title *Preparation of steel substrates before application of paints and related products — Surface roughness characteristics of blast-cleaned steel substrates*:

- *Part 1: Specifications and definitions for ISO surface profile comparators for the assessment of abrasive blast-cleaned surfaces* <https://standards.iteh.ai/catalog/standards/sist/3a9ac8d4-36df-428a-bb21-cd48d1e89f8e/iso-8503-1-2005>
- *Part 2: Method for the grading of surface profile of abrasive blast-cleaned steel — Comparator procedure*
- *Part 3: Method for the calibration of ISO surface profile comparators and for the determination of surface profile — Focusing microscope procedure*
- *Part 4: Method for the calibration of ISO surface profile comparators and for the determination of surface profile — Stylus instrument procedure*
- *Part 5: Replica tape method for the determination of the surface profile*



## 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 and mill scale;
- b) the presence of surface contaminants, including salts, dust, oils and greases;
- c) the surface profile.

International standards ISO 8501, ISO 8502 and ISO 8503 have been prepared to provide methods of assessing these factors, while ISO 8504 provides guidance on the preparation methods that are available for cleaning steel substrates, indicating the capabilities of each in attaining specified levels of cleanliness.

These International Standards do not contain recommendations for the protective coating systems to be applied to the steel surface. Neither do they contain recommendations for the surface quality requirements 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 recommendations are found in other documents, such as national standards and codes of practice. It will be necessary for users of these International Standards to ensure that the 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;
- within the capability of the cleaning procedure specified.

The four International Standards referred to above deal with the following aspects of preparation of steel substrates:

- ISO 8501 — *Visual assessment of surface cleanliness*;
- ISO 8502 — *Tests for the assessment of surface cleanliness*;
- ISO 8503 — *Surface roughness characteristics of blast-cleaned steel substrates*;
- ISO 8504 — *Surface preparation methods*.

Each of these International Standards is in turn divided into separate parts.

It is important to note that numerical characterization of a surface profile is meaningful only when accompanied by an understanding of the errors of measurement and by the realization that different techniques may yield somewhat different numerical values for the profile. Estimates of measurement error associated with different techniques can be obtained from national or international standards or from the equipment manufacturers. As shown in Annex B, values given by the replica tape method align well with those obtained using other parts of ISO 8503.

Information regarding the magnitude of errors associated with use of replica tape is given in Annex A.

NOTE Advantages of the replica tape method include the fact that it affords numerical characterization, yields a permanent record, works well on curved surfaces and benefits from a geographically broad base of user experience over a period of several decades.