SLOVENSKI STANDARD
oSIST prEN 13144:2017

01-junij-2017

Kovinske in druge anorganske prevleke - Metoda za kvantitativno merjenje adhezije z nateznim preskusom

Metallic and other inorganic coatings - Method for quantitative measurement of adhesion by tensile test

Metallische und andere anorganische Überzüge - Verfahren zur quantitativen Messung der Haftfestigkeit durch den Zugversuch

Revêtements métalliques et autres revêtements inorganiques - Méthode de mesurage quantitatif de l'adhérence par essai de traction

Ta slovenski standard je istoveten z: **prEN 13144**

ICS:

25.220.40	Kovinske prevleke	Metallic coatings

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EUROPEAN STANDARD

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prEN 13144

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ICS 25.220.40; 25.220.99

Will supersede EN 13144:2003

English Version

Metallic and other inorganic coatings - Method for quantitative measurement of adhesion by tensile test

Revêtements métalliques et autres revêtements inorganiques - Méthode de mesurage de l'adhérence par essai de traction

Metallische und andere anorganische Überzüge - Verfahren zur quantitativen Messung der Haftfestigkeit durch den Zugversuch

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 262.

If this draft becomes a European Standard, 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.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

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European foreword

This document (prEN 13144:2017) has been prepared by Technical Committee CEN/TC 262 “Metallic and other inorganic coatings”, the secretariat of which is held by BSI.

This document will supersede EN 13144:2003.

This document is currently submitted to the CEN Enquiry.

1 Scope

This European Standard specifies a quantitative method for the measurement of adhesive strength of metallic and other inorganic coatings applied to metallic, polymer and glass substrates.

Typical coatings for which this European Standard applies are metallic coatings such as aluminium, copper, nickel, nickel plus chromium, silver, tin, tin-nickel alloys, zinc, gold as well as other inorganic coatings such as oxides or nitrides e.g. of aluminium, indium and indium-tin, silicon, niobium, titanium, tungsten, zirconium and others.

This European Standard does not apply to certain hot dip, spray and mechanical coatings.

The measurement is valid if the cohesion and adhesion properties of the adhesive are higher than those of the coating subjected to test.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 15870, *Adhesives - Determination of tensile strength of butt joints (ISO 6922)*

EN ISO 4624, *Paints and varnishes - Pull-off test for adhesion (ISO 4624)*

EN ISO 10365:1995, *Adhesives - Designation of main failure patterns (ISO 10365:1992)*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
adhesive strength
force per square millimetre required to separate a coating from its substrate

Note 1 to entry: Adhesion may be deemed inadequate in the presence of blisters, scaling and any defect that results from the separation of the coating from its substrate.

3.2
adhesion
physical property resulting from the magnitude of forces joining the atoms and/or molecules at an interface of two materials

3.3
cohesion
physical property resulting from the magnitude of forces joining the atoms and/or molecules within one material

3.4
test block
used for pull-off tests within the tensile testing machine (described in 4.2.1.2)

3.5
test stamp
used for pull-off tests within the tensile testing machine (described in 4.2.1.3) or centrifuge (described in 4.2.2.2)