EESTI STANDARD EVS-EN 10328:2005

Iron and steel - Determination of the conventional depth of hardening after surface heating

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EESTI STANDARDIKESKUS

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Käesolev Eesti standard EVS-EN 10328:2005 sisaldab Euroopa standardi EN 10328:2005 ingliskeelset teksti. Käesolev dokument on jõustatud 30.03.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 10328:2005 consists of the English text of the European standard EN 10328:2005. This document is endorsed on 30.03.2005 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

NATIONAL FOREWORD

Käsitlusala: This document defines the test method for the determination of the conventional depth of hardening after surface heating.	**Scope:** This document defines the test method for the determination of the conventional depth of hardening after surface heating.

ICS 77.040.10

Võtmesõnad: area, case hardening, knoop, limits (mathematics), materials, mathematical calculations, mathematics, measurement, peripheral layer hardening, rockwell, specimen preparation, steels, surfaces, test equipment, testing, vickers, vickers hardness, workpieces

EUROPEAN STANDARD

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English version

Iron and steel - Determination of the conventional depth of hardening after surface heating

Produits sidérurgiques - Détermination de la profondeur conventionnelle de trempe après chauffage superficiel

Eisen und Stahl - Bestimmung der Einhärtungstiefe nach dem Randschichthärten

This European Standard was approved by CEN on 3 January 2005.

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.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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Foreword

This document (EN 10328:2005) has been prepared by Technical Committee ECISS/TC 2 “Steel – Physico-chemical and non-destructive testing”, the secretariat of which is held by AFNOR.

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 August 2005, and conflicting national standards shall be withdrawn at the latest by August 2005.

This document supersedes EURONORM 116:1972.

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

1 Scope

This document defines the test method for the determination of the conventional depth of hardening after surface heating.

2 Normative references

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

EN ISO 6507-1, *Metallic materials - Vickers hardness test - Part 1: Test method. (ISO 6507-1:1997)*

3 Terms and definitions

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

3.1
hardness limit
hardness (expressed in HV and measured according to EN ISO 6507-1) defined compared to minimal hardness on the surface of the piece in question by the ratio :

"hardness limits" = 0,80 X "minimal surface hardness".

3.2
effective depth of hardness after surface heating
distance between the surface of the piece to be tested and the point in the layer where the Vickers hardness is equal to the hardness limit, when measured under a strength of 9,807 N

4 Conventions

4.1 Expression of the effective depth of hardness after surface heating

This parameter is designated by the symbol D.S.

Its determination is expressed in millimetres, in the zone designated in the plan, on a piece, which may or may not have been rectified depending on the specification.

4.2 Special cases

All other values of hardness limit should be specially agreed. It should then be indicated by the symbol D.S.

By agreement between the parties, loads differing from the test strength (9,807 N) may be used, these loads being within the range 4,903 and 49,03 N.

Similarly, the use of the Rockwell method should be the subject of a prior agreement between the parties, which should also define the value of the hardness limit.