EESTI STANDARD EVS-EN 1043-1:1999

Metalsete materjalide keevisõmbluste purustav katsetamine. Kõvaduse määramine.Osa 1: Kaarkeevitatud keevisliite kõvaduskatse

Destructive tests on welds in metallic materials - Hardness testing - Part 1: Hardness test on arc welded joints

EESTI STANDARDIKESKUS

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 1043-1:1999 sisaldab Euroopa standardi EN 1043-1:1995 ingliskeelset teksti. Käesolev dokument on jõustatud 23.11.1999 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 1043-1:1999 consists of the English text of the European standard EN 1043-1:1995. This document is endorsed on 23.11.1999 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: Käesolev standard määrab kindlaks metalsete materjalide kaarkeevitatud liidete ristlõike kõvaduse määramise testid. Standard hõlmab Vickersi kõvaduskatset vastavalt standardile ISO 6507-1, üldjuhul testimiskoormusega 49 N või 98 N (HV 5 või HV 10). Kuid eespool kirjeldatud põhimõtteid võib rakendada ka Brinelli kõvaduskatse ja mikrokõvaduse määramise korral.	**Scope:**

ICS 25.160.40

Võtmesõnad: keevised, keevisliited, kõvadus vickersi järgi, kõvaduse testimine, metallid

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 1043-1

December 1995

ICS 25.160.40

Descriptors: Testing, welded joints, hardness test, metals.

English version

Destructive tests on welds in metallic materials

Hardness testing

Part 1: Hardness test on arc welded joints

Essais destructifs des soudures sur matériaux métalliques; essai de dureté; Partie 1: Essai de dureté des assemblages soudés à l'arc

Zerstörende Prüfung von Schweißverbindungen an metallischen Werkstoffen; Härteprüfung. Teil 1: Härteprüfung für Lichtbogenschweißverbindungen

This European Standard was approved by CEN on 1995-11-24.

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, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

Ref. No. EN 1043-1:1995 E

Contents

Page

Foreword 2
1 Scope 3
2 Normative references 3
3 Principle 3
4 Denominations and symbols 4
5 Preparation of test specimens 4
6 Test procedure 5
6.1 Rows of indentation (R) 5
6.2 Individual indentations (E) 6
7 Test results 6
8 Test report 6
Annex A (informative) Hardness testing (R) on welded joints 17
Annex B (informative) Hardness testing (E) on welded joints 18

Foreword

This European Standard has been prepared by the Technical Committee CEN/TC 121 'Welding', the secretariat of which is held by DS.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, and conflicting national standards withdrawn, by June 1996 at the latest.

In accordance with the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard:

Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

1 Scope

This standard specifies hardness tests on transverse sections of arc welded joints of metallic materials. It covers Vickers hardness tests in accordance with ISO 6507-1, normally with test loads of 49 N or 98 N (HV 5 or HV 10).

However, the principles may be applied to Brinell hardness testing (with appropriate testing loads of HB 2,5/15,625 or HB 1/2,5) in accordance with EN 10003-1 and micro hardness testing in accordance with ISO 6507-2 and EN 1043-2.

Testing should be carried out to ensure that the highest and the lowest level of hardness of both parent metal and weld metal is determined.

The type and extent of testing is as specified by the relevant application standard or by agreement between the contracting parties.

2 Normative references

This European Standard incorporates, by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

prEN 1043-2	Destructive test on welds in metallic materials - Hardness testing - Part 2: Micro hardness testing
EN 10003-1	Metallic materials - Brinell hardness test - Part 1: Test method
ISO 6507-1	Metallic materials - Hardness test - Vickers test - Part 1 : HV 5 to HV 100
ISO 6507-2	Metallic materials - Hardness test - Vickers test - Part 2 : HV 0,2 to less than HV 5

3 Principle

Hardness testing shall be carried out in accordance with ISO 6507-1, ISO 6507-2 or EN 10003-1.

The hardness tests may be carried out in the form of rows of indentations, R, or as individual indentations, E.

When types of weld are not shown in the examples in figures 1 and 2, the test procedure shall be appropriate to the welded joint.

Unless otherwise specified, the test shall be carried out at ambient temperature (23 ± 5) °C.