

## **Kuumvaltsitud lattide ja varraste pinna kvaliteediklassid. Tehnilised tarnetingimused**

Surface quality classes for hot-rolled bars and rods -  
Technical delivery conditions

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 10221:1999 sisaldab Euroopa standardi EN 10221:1995 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 23.11.1999 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 10221:1999 consists of the English text of the European standard EN 10221:1995.</p> <p>This document is endorsed on 23.11.1999 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
--	---

<p><b>Käsitlusala:</b> See Euroopa standard määrab kindlaks nõuded nende kuumvaltsitud ümmarguste lattide ja varraste pinna kvaliteedi kohta, mille nimiläbimõõt on <math>5\text{ mm} &lt; d_N &lt; 120\text{ mm}</math>.</p>	<p><b>Scope:</b></p>
---	----------------------

**ICS** 77.140.60

**Võtmesõnad:** katsed, kontroll, kuumvaltsitud, kvaliteediklassid, pinnakvaliteet, raud- ja terastooted, talad, tarnetingimus, tähistamine, valtsitud pooltoode (peenike täitevarb)

**Hinnagrupp** E

ICS 77.140.60; 77.140.70

Descriptors: Steel, surface quality, bars, rod.

**English version**

**Surface quality classes for hot-rolled bars and rods**  
Technical delivery conditions

Classes de qualité de surface des barres  
et fils machine laminés à chaud; condi-  
tions techniques de livraison

Oberflächengütekassen für warmge-  
walzten Stabstahl und Walzdraht;  
technische Lieferbedingungen

This European Standard was approved by CEN on 1995-10-20.

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**

## Contents

	Page
<b>1 Scope</b> .....	2
<b>2 Normative references</b> .....	2
<b>3 Definitions</b> .....	2
<b>4 Requirements</b> .....	2
4.1 General .....	2
4.2 Ordering .....	3
4.3 Designation .....	3
<b>5 Testing</b> .....	3
5.1 General .....	3
5.2 Test methods .....	3
<b>6 Repairs</b> .....	3

## Foreword

This European Standard has been drawn up by a joint working group of ECISS/TC 15 'Wire rod; qualities, dimensions, tolerances and specific tests' (Secretariat: Italy) and ECISS/TC 23 'Steels for heat treatment, alloy steels and free-cutting steels; qualities' (Secretariat: Germany).

It supersedes:

prEN 10163-4 Delivery requirements for surface quality of hot rolled steel products. Part 4: Round bars and wire rod

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 May 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, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

## 1 Scope

**1.1** This European Standard specifies requirements for the surface quality of hot rolled round bars and rod with nominal diameters,  $d_N$ , from 5 mm to 150 mm.

**1.2** Subject to agreement between the manufacturer and purchaser, this European Standard may be applied also for squares, hexagons and octagons.

**1.3** This European Standard applies particularly for steels for engineering applications, but may by agreement also be applied for general structural steels or tool steels.

**1.4** This European Standard does not include any requirements for the permissible depth of surface decarburization.

## 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 applies.

EN 10079	Definitions of steel products
ISO 7800:1984	Metallic materials; wire; simple torsion test

## 3 Definitions

For the purposes of this European Standard, the following definitions apply:

**3.1 delivery lot:** Unless otherwise specified in the order or in the appropriate product standard, a quantity of steel of the same type and the same diameter ordered with the same requirements for the surface quality, and delivered at the same time.

**3.2 bars, rod:** See prEN 10079.

**3.3 discontinuities:** Surface discontinuities are geometric irregularities projecting inwards.

**3.3.1 imperfections:** Discontinuities with a depth equal to or less than the specified limiting value.

**3.3.1.1 sharp discontinuities:** All discontinuities which may act as a notch, such as laps, seams and cracks.

**3.3.1.2 shallow discontinuities:** Discontinuities which have a less notch-like effect and which have a more shallow aspect, such as rolled-in scale and slivers.

**3.3.2 defects:** Discontinuities with a depth greater than the specified limiting value.

## 4 Requirements

### 4.1 General

The surface requirements are classified according to table 1 and figure 1. If the appropriate European Standard or EURONORM specifying the quality requirements for the