Founding - Abrasion resistant cast iron

Founding - Abrasion resistant cast iron

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 12513:2001 sisaldab Euroopa standardi EN 12513:2000 ingliskeelset teksti. Käesolev dokument on jõustatud 09.03.2001 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 12513:2001 consists of the English text of the European standard EN 12513:2000. This document is endorsed on 09.03.2001 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: This European Standard defines the grades of abrasion resistant white cast irons. It specifies the grades in terms of: chemical composition; hardness.	**Scope:** This European Standard defines the grades of abrasion resistant white cast irons. It specifies the grades in terms of: chemical composition; hardness.

ICS 77.080.10

Võtmesõnad: cast iron, chromium content, classification, classification systems, classifications, definitions, foundry practice, grade, grades, hardness, heat treatment, materials, selection of grades, specification (approval), specifications, surveys, wear, wear resistance

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 12513

October 2000

ICS 77.080.10

English version

Founding

Abrasion-resistant cast iron

Fonderie – Fonte résistante à l'usure par abrasion

Gießereiwesen – Verschleiß-beständige Gusseisen

This European Standard was approved by CEN on 2000-09-15.

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.

The European Standards exist 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, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the 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 12513 : 2000 E

Contents

Foreword

This European Standard has been prepared by Technical Committee CEN/TC 190 "Foundry technology", 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 April 2001, and conflicting national standards shall be withdrawn at the latest by April 2001.

Within its programme of work, Technical Committee CEN/TC 190 requested CEN/TC 190/WG 2.40 "Wear resistant and abrasion resistant cast iron" to prepare the following standard:

EN 12513
Founding – Abrasion resistant cast irons

The annexes A, B and C are informative.

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

Introduction

This European Standard deals with the classification of abrasion resistant white cast irons in accordance with their chemical composition and hardness. Such cast irons are widely used in the mining, earth moving, milling and manufacturing industries where high resistance to abrading minerals and other abrading solids is required.

The abrasion resistance of these cast irons depends on them having the appropriate structure and hardness for the application. The required structure and hardness of abrasion resistant cast irons are developed by selecting an appropriate composition and processing route.

1 Scope

This European Standard defines the grades of abrasion resistant white cast irons. It specifies the grades in terms of:

– chemical composition;

– hardness.

The types of abrasion resistant white cast irons covered by this standard are:

a) unalloyed or low alloy cast irons;

b) nickel-chromium cast irons covering two general types:

– 4 % Ni 2 % Cr cast irons;
– 9 % Cr 5 % Ni cast irons;

c) high chromium cast irons covering four ranges of chromium content:

– 11 % < Cr ≤ 14 %;
– 14 % < Cr ≤ 18 %;
– 18 % < Cr ≤ 23 %;
– 23 % < Cr ≤ 28 %;

and for each chromium content range, three ranges of carbon content.

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 (including amendments).

EN 1559-1
Founding – Technical conditions of delivery – Part 1: General

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

NOTE: Informative references to documents used in the preparation of this standard, and cited at the appropriate places in the text, are listed in a bibliography.