

**Metallivalu. Kapillaardefektoskoopia.
Osa 1: Liivvormvalu, kokillvalu ja
vaakumvalu**

Founding - Liquid penetrant inspection - Part 1:
Sand, gravity die and low pressure die castings

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 1371-1:2000 sisaldab Euroopa standardi EN 1371-1:1997 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 11.01.2000 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 1371-1:2000 consists of the English text of the European standard EN 1371-1:1997.</p> <p>This document is endorsed on 11.01.2000 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>
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<p>Käsitlusala: Standard kehtib kõikide tavalistes valuvormides kokillvalu- ja vaakumvalumeetodil toodetud valandite (välja arvatud nende vask-tina- ja/või vask-tina-pliisulamite valu, kus vask on põhikomponent) kapillaardefektoskoopilise kontrollimise kohta mis tahes sulamimarkide ja -valutehnoloogiate korral. Standard ei kehti väljasulatavate mudelitega valu ega survevalu kohta.</p>	<p>Scope:</p>
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ICS 77.140.80, 77.150.99

Võtmesõnad: kapillaardefektoskoopilised teimid, kontroll, malm, mittepurustavad teimid, pinnadefektid, pinnakvaliteet, terased, valandid, valutehnoloogia, vastuvõetavus

ICS 77.140.80; 77.150.99

Descriptors: Liquid penetrant inspection, castings, testing.

English version

Founding – Liquid penetrant inspection

Part 1: Sand, gravity die and low pressure die castings

Fonderie – Contrôle par ressuage – Partie 1: Pièces moulées au sable, en coquille, par gravité et basse pression	Gießereiwesen – Eindringprüfung – Teil 1: Sand-, Schwerkraftkokillen- und Niederdruckkokillengußstücke
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This European Standard was approved by CEN on 1997-06-02.

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

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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 December 1997, and conflicting national standards shall be withdrawn at the latest by December 1997.

Within its programme of work, Technical Committee CEN/TC 190 requested CEN/TC 190/WG 4.20 "Surface inspection" to prepare the following standard:

EN 1371-1

Founding – Liquid penetrant inspection – Part 1: Sand, gravity die and low pressure die castings

This is one of two European Standards for liquid penetrant inspection. The other standard is:

prEN 1371-2

Founding – Liquid penetrant inspection – Part 2: Investment castings

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 complements the general principles of liquid penetrant inspection given in EN 571 for the additional requirements of the foundry industry.

Liquid penetrant inspection as well as any other non destructive examination method is part of a general or specific assessment of the quality of a casting to be agreed between the manufacturer and the purchaser at the time of acceptance of the order.

Penetrant testing examination of castings is standardized in two parts:

- EN 1371-1: Sand, gravity die and low pressure die castings
- prEN 1371-2: Investment castings

1 Scope

This European Standard applies to the liquid penetrant testing of all castings (except copper-tin and/or copper-tin-lead alloy castings, where copper is the major constituent) produced in conventional sand moulds, by gravity and low-pressure die casting whatever their grade and the casting procedure used to produce them.

This standard does not apply to investment and pressure die castings.

2 Normative references

This 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 standard only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies.

EN 473

Qualification and certification of NDT personnel – General principles

EN 571-1

Non-destructive testing – Penetrant testing – Part 1: General principles

EN 1370

Founding – Surface roughness inspection by visual/tactile comparators

prEN 1371-2

Founding – Liquid penetrant inspection – Part 2: Investment castings

prEN 1956

Non-destructive testing – Penetrant testing and magnetic particle testing – Viewing conditions

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

3 Conditions for liquid penetrant inspection

The manufacturing stage(s) when liquid penetrant inspection is to be performed shall be clearly defined by agreement between the manufacturer and the purchaser.