

**Metallivalu. Kapillaardefektoskoopia.  
Osa 2: Väljasulatatavate mudelitega  
valu**

Founding - Liquid penetrant inspection - Part 2:  
Investment castings

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 1371-2:2000 sisaldab Euroopa standardi EN 1371-2:1998 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 1371-2:2000 consists of the English text of the European standard EN 1371-2:1998.</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><b>Käsitlusala:</b> See Euroopa standard määrab kindlaks kapillaardefektoskoopia rakendamise kõigi valuliikide (välja arvatud vask-tina- ja/või vask-tina-pliisulamite valu, kus vask on põhikomponent) kohta, mis on toodetud väljasulatatavate mudelite valumeetodil ning on mõeldud üldotstarbeliseks kasutamiseks.</p>	<p><b>Scope:</b></p>
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**ICS** 77.140.80, 77.150.99

**Võtmesõnad:** defekti lubatud piirhálbed, kapillaardefektoskoopilised teimid, kontroll, mittepurustavad teimid, pinnaomadused, täppisseadmed, valandid, valutehnoloogia, vastuvõetavus

ICS 77.140.80; 77.150.99

Descriptors: Liquid penetrant inspection, castings, testing.

**English version**

**Founding – Liquid penetrant inspection**

**Part 2: Investment castings**

Fonderie – Contrôle par ressuage –  
Partie 2: Pièces en moulage de  
précision (cire perdue)

Gießereiwesen – Eindringprüfung –  
Teil 2: Feingußstücke

This European Standard was approved by CEN on 1998-04-09.

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**

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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 November 1998, and conflicting national standards shall be withdrawn at the latest by November 1998.

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 1371-2

Founding – Liquid penetrant inspection – Part 2: Investment castings

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

EN 1371-1

Founding – Liquid penetrant inspection – Part 1: Sand, gravity die and low pressure die 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 EN 1371-1. It deals with the liquid penetrant inspection of investment castings. It has been written to take account of the difference of dimension of the reference area, the difference in thickness of the casting and the difference of nature of discontinuities with regard to other casting processes.

The structure of this standard is similar to EN 1371-1.

## 1 Scope

This European Standard specifies the application of liquid penetrant testing to all castings (except copper-tin and/or copper-tin-lead alloy castings, where copper is the major constituent) produced by investment casting for general purposes.

This standard does not apply to aerospace investment castings (see prEN 2002-16).

## 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.

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

EN 1371-1

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

prEN 1956

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

prEN ISO 3452-4

Non-destructive testing – Penetrant testing – Part 4: Equipment (ISO/FDIS 3452-4:1998)

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

## 3 Definitions

For the purposes of this standard, the following definitions apply:

### 3.1 investment casting

Process of fabrication of a ceramic or plaster mould usually around a wax or thermoplastic pattern which is removed after drying and prior to the pouring of molten metal into the resultant cavity.

NOTE: Investment casting is sometimes referred to as lost-wax casting.