

## **Thermal spraying - Acceptance inspection of thermal spraying equipment - Part 1: General requirements**

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## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 1395-1:2007 sisaldab Euroopa standardi EN 1395-1:2007 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 28.02.2007 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 1395-1:2007 consists of the English text of the European standard EN 1395-1:2007.</p> <p>This document is endorsed on 28.02.2007 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></p> <p>This European Standard specifies requirements for the acceptance inspection of thermal spraying equipment including plasma (atmospheric and with controlled atmosphere in chambers), arc and flame including HVOF (high velocity oxygen-fuel) spray systems, as well as manipulator and powder feed systems used in spray jobs to produce thermally sprayed coatings of reproducible quality. This European Standard is applied to thermal spray equipment where components are supplied by one manufacturer/supplier. If one or more interdependent components of the thermal spray equipment are not from the same manufacturer/supplier the technical specification will be agreed between the manufacturer/supplier and user/customer.</p>	<p><b>Scope:</b></p> <p>This European Standard specifies requirements for the acceptance inspection of thermal spraying equipment including plasma (atmospheric and with controlled atmosphere in chambers), arc and flame including HVOF (high velocity oxygen-fuel) spray systems, as well as manipulator and powder feed systems used in spray jobs to produce thermally sprayed coatings of reproducible quality. This European Standard is applied to thermal spray equipment where components are supplied by one manufacturer/supplier. If one or more interdependent components of the thermal spray equipment are not from the same manufacturer/supplier the technical specification will be agreed between the manufacturer/supplier and user/customer.</p>
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ICS 25.220.20

Võtmesõnad:

English Version

## Thermal spraying - Acceptance inspection of thermal spraying equipment - Part 1: General requirements

Projection thermique - Contrôle d'acceptation du matériel  
de projection thermique - Partie 1: Exigences générales

Thermisches Spritzen - Abnahmeprüfungen für Anlagen  
zum thermischen Spritzen - Teil 1: Allgemeine  
Anforderungen

This European Standard was approved by CEN on 23 December 2006.

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 CEN Management Centre 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 CEN Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



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## Foreword

This document (EN 1395-1:2007) has been prepared by Technical Committee CEN/TC 240 "Thermal spraying and thermally sprayed coatings", 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 July 2007, and conflicting national standards shall be withdrawn at the latest by July 2007.

This document, together with EN 1395-2, 1395-3, 1395-4, 1395-5, 1395-6 and 1395-7 supersedes EN 1395:1996.

EN 1395 consists of the following Parts, under the general title *Thermal spraying — Acceptance inspection of thermal spraying equipment*:

- *Part 1: General requirements;*
- *Part 2: Flame spraying including HVOF;*
- *Part 3: Arc spraying;*
- *Part 4: Plasma spraying;*
- *Part 5: Plasma spraying in chambers;*
- *Part 6: Manipulator systems;*
- *Part 7: Powder feed systems.*

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

## 1 Scope

This European Standard specifies requirements for the acceptance inspection of thermal spraying equipment including plasma (atmospheric and with controlled atmosphere in chambers), arc and flame including HVOF (high velocity oxygen-fuel) spray systems, as well as manipulator and powder feed systems used in spray jobs to produce thermally sprayed coatings of reproducible quality.

This European Standard is applied to thermal spray equipment where components are supplied by one manufacturer/supplier. If one or more interdependent components of the thermal spray equipment are not from the same manufacturer/supplier the technical specification will be agreed between the manufacturer/supplier and user/customer.

This European Standard is intended to form the basis of technical delivery conditions.

## 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 657:2005, *Thermal spraying — Terminology, classification*

EN 1395-2, *Thermal spraying — Acceptance inspection of thermal spraying equipment — Part 2: Flame spraying including HVOF*

EN 1395-3, *Thermal spraying — Acceptance inspection of thermal spraying equipment — Part 3: Arc spraying*

EN 1395-4, *Thermal spraying — Acceptance inspection of thermal spraying equipment — Part 4: Plasma spraying*

EN 1395-5, *Thermal spraying — Acceptance inspection of thermal spraying equipment — Part 5: Plasma spraying in chambers*

EN 1395-6, *Thermal spraying — Acceptance inspection of thermal spraying equipment — Part 6: Manipulator systems*

EN 1395-7, *Thermal spraying — Acceptance inspection of thermal spraying equipment — Part 7: Powder feed systems*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 657:2005 apply.

## 4 Purpose of acceptance inspection

### 4.1 General

#### 4.1.1 Class A

A fully computerized thermal spray equipment using gas mass flow controller, PLC and/or PC, monitor and/or a screen for process control shall be considered as an Class-A-System concerning accuracy as well as stability and reproducibility. A Class-A-System represents state of the art technology.