

**Thermal spraying - Acceptance
inspection of thermal spraying
equipment - Part 7: Powder feed system**

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 1395-7:2007 sisaldab Euroopa standardi EN 1395-7:2007 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 1395-7:2007 consists of the English text of the European standard EN 1395-7:2007.</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>Käsitlusala: This European Standard specifies requirements for the acceptance inspection of thermal spraying equipment in the case of powder feed units used in spray jobs to produce thermally sprayed coatings of reproducible quality. This part should be used in conjunction with EN 1395-1, which includes general requirements and explanations of procedures. This part should be used in addition to EN 1395-2 when carrying out acceptance inspection for flame and/or HVOF (high velocity oxygen-fuel) spraying equipment, or EN 1395-4 when carrying out acceptance inspection for plasma spraying equipment.</p>	<p>Scope: This European Standard specifies requirements for the acceptance inspection of thermal spraying equipment in the case of powder feed units used in spray jobs to produce thermally sprayed coatings of reproducible quality. This part should be used in conjunction with EN 1395-1, which includes general requirements and explanations of procedures. This part should be used in addition to EN 1395-2 when carrying out acceptance inspection for flame and/or HVOF (high velocity oxygen-fuel) spraying equipment, or EN 1395-4 when carrying out acceptance inspection for plasma spraying equipment.</p>
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Võtmesõnad:

English Version

Thermal spraying - Acceptance inspection of thermal spraying equipment - Part 7: Powder feed systems

Projection thermique - Contrôle d'acceptation du matériel de projection thermique - Partie 7: Systèmes d'alimentation de poudre

Thermisches Spritzen - Abnahmeprüfungen für Anlagen zum thermischen Spritzen - Teil 7: Pulverfördersysteme

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.

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Foreword

This document (EN 1395-7:2007) 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 1395-1, 1395-2, 1395-3, 1395-4, 1395-5 and 1395-6 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 in the case of powder feed units used in spray jobs to produce thermally sprayed coatings of reproducible quality.

This part should be used in conjunction with EN 1395-1, which includes general requirements and explanations of procedures.

This part should be used in addition to EN 1395-2 when carrying out acceptance inspection for flame and/or HVOF (high velocity oxygen-fuel) spraying equipment, or EN 1395-4 when carrying out acceptance inspection for plasma spraying equipment.

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 1274:2004, *Thermal spraying — Powders — Composition, technical supply conditions*

3 Terms and definitions

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

4 Conditions of acceptance inspection

4.1 General

Clause 4 and clause 5 specify state of the art technology in thermal spraying equipment and the minimum requirements concerning stable parameter settings and maintenance according to the classes given in Annex A.

4.2 Powder feed unit

4.2.1 General

The powder feed unit shall be suitable for operation with the spraying equipment to be tested. This means the carrier gas pressure and flow shall operate under the specific condition of the spraying process, e.g. in the low pressure atmosphere in the chamber or against the high pressure in the combustion chamber of the burner.

The class of the powder feed unit has to correlate with the class of the spraying equipment itself.

The unit shall permit uniform processing of the spraying powder for which it is designed. It shall be possible to adjust the powder feed rate. The set values shall be constant and reproducible, a precondition for this being adequate flow and constant carrier gas pressure or actuating air pressure, as appropriate.

4.2.2 Stand-alone powder feed unit

This type of powder feed unit uses a carrier gas. A change in the primary gas flow of the spraying equipment, as indicated on the control panel, shall not affect the carrier gas flow.