

**Termisk sprutning – Acceptansk kontroll av
utrustning för termisk sprutning –
Del 5: Lågt tryck och kontrollerad atmosfär**

**Thermal spraying – Acceptance inspection of
thermal spraying equipment –
Part 5: Plasma spraying in chambers**

Europastandarden EN 1395-5:2007 gäller som svensk standard. Detta dokument innehåller den officiella engelska versionen av EN 1395-5:2007.

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Thermisches Spritzen - Abnahmeprüfungen für Anlagen zum thermischen Spritzen - Teil 5: Plasmaspritzen in Kammern

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EN 1395-5:2007 (E)

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Foreword

This document (EN 1395-5:2007) 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of an identical text or by endorsement, at the latest by July 2007, and conflicting national standards shall be withdrawn at the latest by July 2007.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, 1395-6 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.

EN 1395-5:2007 (E)

1 Scope

This European Standard specifies requirements for the acceptance inspection of thermal spraying equipment, in this case the pressurised part only for low pressure and controlled atmosphere plasma spraying, 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.

The plasma spraying system itself should be acceptance inspected according to EN 1395-4.

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*

3 Terms and definitions

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

3.1 final pressure
<vacuum pump> asymptotically approached value that the pressure reaches in a closed flanged vacuum pump system at usual operating conditions and without further gas inlet

3.2 degassing
gaseous de-sorption which can be accelerated by physical processes, e.g. by evacuation, heating

3.3 vapour de-sorption
spontaneous evaporation as the decreasing pressure depresses the boiling point to the ambient temperature

3.4 gas ballast of a vacuum pump
<vacuum pump> controlled admission of an amount of gas, in general into the compression room of a vacuum pump to avoid or minimise the condensate formation within the vacuum unit

3.5 gas load
total $p \times V/t$ flow that is applied to the vacuum system

NOTE The unit is mbar l s⁻¹.

3.6 leaks
leakiness within the system caused by material or processing faults or wrong handling of sealings

NOTE A leak can occur in the chamber or at joint elements.