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**THERMAL SPRAYING - TERMINOLOGY,
CLASSIFICATION**

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EUROPEAN STANDARD

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Supersedes EN 657:1994

English version

Thermal spraying - Terminology, classification

Projection thermique - Terminologie, classification

Thermische Spritzen - Begriffe, Einteilung

This European Standard was approved by CEN on 3 February 2005.

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Foreword

This document (EN 657:2005) 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of an identical text or by endorsement, at the latest by September 2005, and conflicting national standards shall be withdrawn at the latest by September 2005.

This document supersedes EN 657:1994.

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

EN 657:2005 (E)

1 Scope

This document defines processes and general terms for thermal spraying. It classifies thermal spraying processes according to type of spray material, to type of operation and to type of energy carrier.

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 ISO 14923, *Thermal spraying — Characterization and testing of thermal sprayed coatings (ISO 14923:2003)*

EN ISO 17836, *Thermal spraying — Determination of the deposition efficiency for thermal spraying (ISO 17836:2004)*

3 Terms and definitions

For the purposes of this document, the following term and definition applies.

3.1 thermal spraying (TS)
process in which surfacing materials are heated to the plastic or molten state, inside or outside of the spraying gun/torch, and then propelled on to a prepared surface; the substrate remains unmelted

NOTE To obtain specific properties of the deposit, a subsequent thermal, mechanical or sealing treatment may be used.

4 Process variations

4.1 Classification according to the type of spray material

Distinction of the following variations:

- wire spraying;
- rod spraying;
- cord spraying;
- powder spraying;
- molten-bath spraying.

4.2 Classification according to the operation

4.2.1 Manual spraying

All operations typical of the spraying process are manual.

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