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Thermal spraying - Determination of the feed rate with spray material in powder form in a production environment

Táto norma obsahuje anglickú verziu európskej normy.

This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 08/23

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EUROPEAN STANDARD

EN 17832

NORME EUROPÉENNE

EUROPÄISCHE NORM

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English Version

## Thermal spraying - Determination of the feed rate with spray material in powder form in a production environment

Projection thermique - Détermination du débit de matière en projection thermique avec un matériau d'apport sous forme de poudre dans un environnement de production

Thermisches Spritzen - Bestimmung der Förderrate von pulverförmigem Spritzmaterial unter Fertigungsbedingungen

This European Standard was approved by CEN on 30 April 2023.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
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**EN 17832:2023 (E)**

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## **European foreword**

This document (EN 17832:2023) 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of an identical text or by endorsement, at the latest by December 2023, and conflicting national standards shall be withdrawn at the latest by December 2023.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

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**EN 17832:2023 (E)****Introduction**

The feed rate for thermal spraying with spray materials in powder form is a process parameter having substantial impact on the quality of a coating and also on the cost efficiency of the coating process. Although the determination of feed rate is one of the most frequently done measurements in thermal spraying, the performance of the measurement often differs in coating shops, leading to problems with respect to the following tasks:

- reaching the required coating quality in a reproducible manner;
- preparation of thermal spray procedure specifications in accordance with EN 17002;
- determination of the deposition efficiency for thermal spraying in accordance with EN ISO 17836;
- acceptance of the feed system in accordance with EN 1395-7.

The document gives guidance for the procedure of measurement.

## 1 Scope

This document specifies the procedure for the measurement of the feed rate for thermal spraying with spray materials in powder form in a production environment.

The application of this document is essential if information on the feed rate of a spray material in powder form is required when using a thermal spraying method.

It is applicable to any thermal spraying method using spray materials in powder form (see EN ISO 14917) where the technical installation used allows the spray powder to be fed through without an activated spray gun.

The determination of the feed rate is mandatory for the preparation of thermal spray procedure specifications in accordance with EN 17002 and the determination of the deposition efficiency in accordance with EN ISO 17836.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 14917, *Thermal spraying — Terminology, classification (ISO 14917)*

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

**koniec náhľadu – text ďalej pokračuje v platenej verzii STN**