



BSI Standards Publication

**Thermal spraying - Components with
thermally sprayed coatings - Thermal
spray procedure specification**

National foreword

This British Standard is the UK implementation of EN 17002:2018.

The UK participation in its preparation was entrusted to Technical Committee STI/40, Thermal spraying and thermally sprayed coatings.

A list of organizations represented on this committee can be obtained on request to its secretary.

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English Version

Thermal spraying - Components with thermally sprayed coatings - Thermal spray procedure specification

Projection thermique - Éléments traités par projection thermique - Spécification de mode opératoire de projection thermique

Thermisches Spritzen - Bauteile mit thermisch gespritzten Schichten - Spritzanweisung

This European Standard was approved by CEN on 9 April 2018.

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European foreword

This document (EN 17002:2018) 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of an identical text or by endorsement, at the latest by February 2019, and conflicting national standards shall be withdrawn at the latest by February 2019.

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Introduction

Thermal spraying processes are used extensively to produce coatings for industrial products, primarily for preventative protection of surfaces. This is the case for production in the factory and on construction sites. Thermal spraying is one of the special processes in which the quality of the coating cannot be determined unambiguously via testing without destroying the component.

Conditions and the process should be monitored for appropriate use of thermally sprayed coatings and to avoid extensive quality and cost issues in production and operation. The manufacturer of the coating should have a functioning quality assurance system, and usually a quality management system as well (e.g. according to EN ISO 9001).

Therefore, thermal spray procedure specifications should be documented as required in standards for quality systems e.g. EN ISO 14922-1 to EN ISO 14922-4. This will assist in achieving the appropriate basis for quality assurance during spray-coating production. Proof that the specifications are observed should be available.

1 Scope

The thermal spray procedure specification (TSPS) is a critically important quality assurance document in the production workflow when producing a thermally sprayed coating.

This document defines the minimum requirements to be followed for the content of a thermal spray procedure specification. When using the thermal spray procedure specification, the requirements of the coating specification are intended to be met. To ensure traceability, the thermal spray procedure specification is intended to be documented and component-related.

Tests and test scopes are intended to be defined by the manufacturer of the coating in a separate test plan according to the requirements of the coating specification.

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 12670, *Thermal spraying — Components with thermally sprayed coatings — Technical supply conditions (ISO 12670)*

EN ISO 14917, *Thermal spraying — Terminology, classification (ISO 14917)*

EN ISO 14922-1, *Thermal spraying — Quality requirements of thermally sprayed structures — Part 1: Guidance for selection and use (ISO 14922-1)*

EN ISO 14922-2, *Thermal spraying — Quality requirements of thermally sprayed structures — Part 2: Comprehensive quality requirements (ISO 14922-2)*

EN ISO 14922-3, *Thermal spraying — Quality requirements of thermally sprayed structures — Part 3: Standard quality requirements (ISO 14922-3)*

EN ISO 14922-4, *Thermal spraying — Quality requirements of thermally sprayed structures — Part 4: Elementary quality requirements (ISO 14922-4)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 14917 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

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thermal spray procedure specification

TSPS

procedure specification that contains the parameters required for the component-related application of the thermal spraying process