

# SLOVENSKI STANDARD SIST EN 13214:2002

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Thermal spraying - Thermal spray coordination - Tasks and responsibilities

Thermisches Spritzen - Aufsicht für das thermische Spritzen - Aufgaben und Verantwortung

Projection thermique - Coordination en projection thermique - Tâches et responsabilités (standards.iteh.ai)

Ta slovenski standard je istoveten z: EN 13214:2001

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ICS:

25.220.20 Površinska obdelava Surface treatment

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**SIST EN 13214:2002** 

# iTeh STANDARD PREVIEW (standards.iteh.ai)

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# EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN 13214

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# English version

# Thermal spraying - Thermal spray coordination - Tasks and responsibilities

Projection thermique - Coordination en projection thermique - Tâches et responsabilités

Thermisches Spritzen - Aufsicht für das thermische Spritzen - Aufgaben und Verantwortung

This European Standard was approved by CEN on 5 January 2001.

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 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 Management Centre has the same status as the official versions.

CEN members are the national standards podies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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# Foreword

This European Standard 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of an identical text or by endorsement, at the latest by July 2001, and conflicting national standards shall be withdrawn at the latest by July 2001.

Annex A is informative.

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

# Introduction iTeh STANDARD PREVIEW

Thermal spraying is a special process which requires qualified personnel for execution of thermal spraying operations on components or parts to give confidence in thermal spraying fabrication and to achieve reliable performance in service during operational time. Coordination personnel should be able to coordinate all activities related to thermal spraying; and be responsible for planning, executing, supervising and inspecting.

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# 1 Scope

This standard identifies the tasks and responsibilities necessary to assure the quality of a coating or a coating component including the coordination of activities related to thermal spraying.

Thermal spraying coordination may be carried out by one or a number of persons within the same company or manufacturing department.

# 2 Terms and definitions

For the purposes of this European Standard, the following terms and definitions apply.

#### 2.1

### manufacturing department

thermal spraying workshops or sites under the same technical and quality management

#### 2.2

## thermal spraying coordinator

a person who has responsibilities in the manufacturing organization for thermal spraying and thermal spraying related activities, whose competence and knowledge has been demonstrated by e.g. education, training and/or relevant manufacturing experience

#### 2.3

# thermal spraying inspection

examining of all activities related to thermal spraying, testing and measuring the thermally sprayed coatings to be produced or manufactured and thereby influenced components/parts to meet the requirements defined by the responsible technical department/s of the company or purchaser

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# 3 Tasks and responsibilities

# 3.1 Quality related activities

Table 1 shall be used to allocate quality related tasks and responsibilities to thermal spraying coordination personnel within the company or manufacturing department practising thermal spraying fabrication. It covers quality related activities and responsibilities; nevertheless, it may be supplemented for special applications. Not all items will necessarily apply to all manufacturing organizations or quality system requirements and a selection should be made in an appropriate way, e.g. where there is no destructive testing or non-destructive testing, item 8.2 of table 1 does not apply.

# 3.2 Definition of tasks and responsbilities

Each single item in table	1 may be associated with	a number of tasks and	responsibilities such as:
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 specification or preparation;		
 coordination;		
 control:		

— inspection, check or witnessing.

All relevant tasks and responsibilities shall be defined and allocated for all relevant items.

If thermal spraying coordination is carried out by a number of persons the tasks, responsibilities and items shall be specified and allocated for each thermal spraying coordinator in the organization.

Thermal spraying coordination is considered as a responsibility of the manufacturer. However, some production, and thereby for some work activities, some tasks and responsibilities may be carried out by subcontractors. Subcontracting activities shall remain subject to thermal spraying coordination in accordance with this standard.

Table 1 — Acitivities related to thermal spraying to be considered when appropriate

Number	Activities			
1	Contract review			
2	Design review			
	Location of thermal sprayed coatings in relation to the design requirements			
	Structure for access for thermal spraying and testing			
	— Thermal spraying details			
	— Thermal sprayed coating acceptance level			
3	Materials			
3.1	Substrate materials			
	— physical properties			
	any supplementary requirements in the material purchasing			
	Identification, handling and storage of the substrate materials			
3.2	Consumables			
	- Suitability iTeh STANDARD PREVIEW			
	D. C. and a second distance			
	— Delivery conditions  (standards.iteh.ai)  — Any supplementary requirements in consumable purchasing			
	Identification, handling and storage of consumables			
4	Subcontracting fa9c56048bdc/sist-en-13214-2002			
	— Suitability of any subcontractor			
	— Qualifying subcontractors			
5	Production planning			
	— Thermal spraying procedure specification			
	Work instructions			
	— Thermal spraying jigs and fixtures			
	— Thermal sprayer's approval, if necessary			
	Thermal spraying assembly sequences for the structure			
	— Thermal spraying inspection requirements			
	— Health and safety			
6	Equipment			
	Suitability of the thermal spraying and associated equipment			
	— Auxiliaries and equipment; supply, identification and handling			
	— Maintenance and repair			
	(continued)			

Table 1 (continued)

Number	Activities		
7	Thermally sprayed coating manufacturing		
7.1	Preliminary activities		
	— Surface preparation		
	Issue of work instructions		
	Suitability and validity of thermal sprayer´s approval, if required		
	Suitability of thermal spraying procedure specification		
	Suitability of the work area including the environment		
7.2	Thermal spraying		
	Assignment of thermal sprayers		
i	Use or function of equipment and accessories		
	Thermal spraying consumables and auxiliaries		
	Application to thermal spraying process		
	Application and method of preheating and post treatment		
	<ul> <li>Application and method of cooling, if applied</li> </ul>		
8	Testing iTeh STANDARD PREVIEW		
8.1	Visual examination (standards.iteh.ai)		
	— Coating dimensions		
	<ul> <li>Shape, dimensions and tolerances of the thermally sprayed components https://standards.iteh.avcatalog/standards/sist/libo4975b-9cdc-4453-8779-</li> <li>Appearance of the thermal sprayed coating 3214-2002</li> </ul>		
8.2	Destructive and non-destructive testing		
	Application of destructive and non-destructive testing		
	Special tests		
9	Acceptance of the thermal sprayed coating		
	Assessment of inspection and test results		
	— Remedial actions		
	Re-assessment of repaired coatings		
	— Corrective actions		
10	Documentation		
	Preparation and maintenance of the necessary records		

# 4 Job specifications

# 4.1 General

A job specification for a thermal spraying coordinator when required, e.g. by the contracting parties or an application standard, shall include:

# 4.2 Tasks

Identification of the assigned tasks, see 3.2

# 4.3 Responsibilities

Identification of the assigned responsibilities:

- Position in the manufacturing department and responsibilities;
- The extent of authorization to accept by signing on behalf of the manufacturing department e.g. procedure specifications, supervision reports etc. as needed in order to fullfil their assigned tasks;
- The extent of authorization to carry out the assigned tasks.

# 5 Technical knowledge

#### 5.1 General

For all tasks assigned, a thermal spraying coordinator shall be able to demonstrate adequate technical knowledge that enables him to perform such tasks in a satisfactory way.

The following factors should be considered:

- general technical knowledge;
- specialized technical knowledge. This may be attained by combination of theoretical knowledge, training and/or experience.

The extent of required manufacturing experience, education and technical knowledge shall be described by the manufacturing department and will depend on the assigned tasks and responsibilities.

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## 5.2 Authorized thermal spraying coordination personnel 3h-9cdc-4453-8779-

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# 5.2.1 General

Authorized thermal spraying coordination should normally be allocated from one of the following groups. This will depend on the nature and/or complexity of the production.

# 5.2.2 Comprehensive technical knowledge

Thermal spraying coordination personnel with full knowledge of a specialist having also basic knowledge on engineering level is sufficient according 5.1 for planning, executing, supervising and testing of all tasks and responsibilities in a thermal spraying fabrication (see Annex A).

# 5.2.3 Specific technical knowledge

Thermal spraying coordination personnel where knowledge of a specialist is sufficient for planning, executing, supervising and testing of all tasks and responsibilities in a thermal spraying fabrication within a selective technical field (see Annex A).

# 5.2.4 Basic technical knowledge

Thermal spraying coordination personnel where knowledge of a practitioner having wider and deeper knowledge of an experienced thermal sprayer is sufficient for planning, executing, supervising and testing of all tasks and responsibilities in a thermal spraying fabrication within a limited technical field (see Annex A).