



**NSAI**  
Standards

Irish Standard Recommendation  
S.R. CEN/TR 15339-5:2014

# Thermal spraying - Safety requirements for thermal spraying equipment - Part 5: Powder and wire feed units

**S.R. CEN/TR 15339-5:2014**

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation — recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

*This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):*

*NOTE: The date of any NSAI previous adoption may not match the date of its original CEN/CENELEC document.*

*This document is based on:*

CEN/TR 15339-5:2014

*Published:*

2014-12-10

*This document was published  
under the authority of the NSAI  
and comes into effect on:*

2015-02-08

ICS number:

25.220.20

NOTE: If blank see CEN/CENELEC cover page

NSAI  
1 Swift Square,  
Northwood, Santry  
Dublin 9

T +353 1 807 3800  
F +353 1 807 3838  
E standards@nsai.ie  
W NSAI.ie

Sales:  
T +353 1 857 6730  
F +353 1 857 6729  
W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

TECHNICAL REPORT

**CEN/TR 15339-5**

RAPPORT TECHNIQUE

TECHNISCHER BERICHT

December 2014

---

ICS 25.220.20

English Version

## Thermal spraying - Safety requirements for thermal spraying equipment - Part 5: Powder and wire feed units

Projection thermique - Exigences de sécurité relatives au matériel de projection thermique - Partie 5: Dispositifs d'alimentation en poudre et en fil

Thermisches Spritzen - Sicherheitsanforderungen für Einrichtungen für das thermische Spritzen - Teil 5: Pulver- und Drahtfördereinheiten

This Technical Report was approved by CEN on 16 September 2014. It has been drawn up by the Technical Committee CEN/TC 240.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

## Contents

Page

Foreword.....	3
1 Scope .....	4
2 Normative references .....	4
3 Function of the powder and wire feed units .....	4
3.1 General.....	4
3.2 Features of the powder feed unit .....	4
3.3 Features of the wire feed unit.....	5
3.3.1 Flame spraying.....	5
3.3.2 Arc spraying.....	5
4 Potential hazards .....	5
4.1 General.....	5
4.2 Powder feed units .....	5
4.3 Wire feed units .....	5
5 Safety requirements — Protection measures .....	6
5.1 General.....	6
5.2 Safety requirements and protection measures for powder feed units in the case of flame, HVOF, and plasma spraying .....	6
5.3 Safety requirements for wire feed units and protection measures in the case of arc spraying .....	6
6 Requirements for manufacture, supply, service and maintenance.....	6
6.1 Requirements of the manufacturer .....	6
6.2 Requirements of the integrator .....	7
6.3 Requirements of the user .....	7
7 National rules .....	7
Bibliography .....	8

## **Foreword**

This document (CEN/TR 15339-5:2014) has been prepared by Technical Committee CEN/TC 240 "Thermal spraying and thermally sprayed coatings", the secretariat of which is held by DIN.

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

CEN/TR 15339, *Thermal spraying - Safety requirements for thermal spraying equipment* is composed of the following parts:

- *Part 1: General requirements*
- *Part 2: Gas control units* (published as a European Standard)
- *Part 3: Torches for thermal spraying and their connection and supply units*
- *Part 4: Gas and liquid fuel supply*
- *Part 5: Powder and wire feed units*
- *Part 6: Spray booth, Handling system, Dust collection, Exhaust system, Filter*

**CEN/TR 15339-5:2014 (E)****1 Scope**

This Technical Report specifies safety requirements of equipment for thermal spraying, in this case of powder and wire feed units.

This part of CEN/TR 15339 should be used in conjunction with CEN/TR 15339-1, which deals with general aspects of designing, manufacturing, and/or putting in service of machines or equipment and with the responsibility for issuing the CE Conformity Declaration.

**2 Normative references**

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

CEN/TR 15339-1, *Thermal spraying — Safety requirements for thermal spraying equipment — Part 1: General requirements*

EN 657, *Thermal spraying — Terminology, classification*

EN 1395-7, *Thermal spraying — Acceptance inspection of thermal spraying equipment — Part 7: Powder feed systems*

**3 Function of the powder and wire feed units****3.1 General**

Thermal spray processes are described and schematically represented in EN 657.

The feed unit shall enable a uniform processing of the spraying material and shall be suitable for operation with the spraying equipment to be intended for spray application.

**3.2 Features of the powder feed unit**

The powder feed unit can be of type:

- stand-alone; or
- integrated in the torch system;

and its operation mode can be:

- independent; or
- in automatic/remote mode controlled by the spray control system.

The powder feed rate shall be adjustable. The actual values shall be constant and reproducible in relation to the set values; this requires an adequate flow rate and a constant pressure of the carrier gas.

The powder feed unit shall be able to operate inside or outside of a spray booth, subject to practical limits on the length of powder feed hose from the feeder to the torch.

The acceptance inspection of the powder feed unit is specified in EN 1395-7.

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

- 
- Looking for additional Standards? Visit Intertek Inform Infostore
  - Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation
-