



NSAI
Standards

Irish Standard Recommendation
S.R. CEN/TR 15339-3:2014

Thermal spraying - Safety requirements for thermal spraying equipment - Part 3: Torches for thermal spraying and their connection and supply units

S.R. CEN/TR 15339-3:2014

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 15339-3:2014

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 15339-3

RAPPORT TECHNIQUE

TECHNISCHER BERICHT

December 2014

ICS 25.220.20

English Version

Thermal spraying - Safety requirements for thermal spraying equipment - Part 3: Torches for thermal spraying and their connection and supply units

Projection thermique - Exigences de sécurité relatives au matériel de projection thermique - Partie 3: Chalumeaux de projection thermique et leurs unités de raccordement et d'alimentation

Thermisches Spritzen - Sicherheitsanforderungen für Einrichtungen für das thermische Spritzen - Teil 3: Brenner und Spritzpistolen und ihre Anschlüsse und Stromquellen

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 thermal spraying equipment.....	4
3.1 General.....	4
3.2 Safety related features of the spray torches and their connections	5
3.2.1 Spray torches for flame and HVOF spraying	5
3.2.2 Spray torches for cold spraying.....	5
3.2.3 Spray torches for arc spraying.....	5
3.2.4 Spray torches for plasma spraying.....	5
3.3 Safety related features of the ignition unit.....	6
3.4 Safety related features of the power source	6
4 Potential hazards	6
4.1 General.....	6
4.2 Flame and HVOF spraying	6
4.3 Cold spraying	7
4.4 Arc spraying.....	7
4.5 Plasma spraying	7
5 Safety requirements – Protection measures	7
5.1 General safety requirements and measures.....	7
5.2 Safety requirements and protection measures for flame and HVOF spraying	8
5.3 Safety requirements and protection measures for cold spraying	8
5.4 Safety requirements and protection measures for arc and plasma spraying	8
5.5 Safety requirements related to electrical and water connections to and in the junction and monitoring box.....	9
5.6 Safety requirements for power sources	9
6 Requirements for manufacture, supply, operation, and maintenance.....	9
6.1 Requirements for the manufacturer.....	9
6.2 Requirements for the integrator.....	9
6.3 Requirements for the user	9
7 National rules	9
Bibliography	10

Foreword

This document (CEN/TR 15339-3:2014) 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 15339-3:2014 (E)**1 Scope**

This Technical Report specifies safety requirements of equipment for thermal spraying, in this case of spray torches, gas hoses, hose assemblies and their electrical and water junctions in junction and monitoring boxes and power sources.

Equipment and storage for gas and liquid fuel supply are presented in CEN/TR 15339-4.

This document should be used in conjunction with CEN/TR 15339-1, which deals with general aspects of designing, manufacture, and/or putting into service of machines or equipment and with the responsibility to issue the CE Conformity Declaration.

Spraying equipment for specific thermal spraying processes, induction plasma spraying, water stabilized plasma spraying and plasma spraying in chambers (below or above atmospheric pressure) are not within the scope of this Technical Report.

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.

EN 657, *Thermal spraying — Terminology, classification*

EN 1256, *Gas welding equipment — Specification for hose assemblies for equipment for welding, cutting and allied processes*

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

CEN/TR 15339-6, *Thermal spraying — Safety requirements for thermal spraying equipment — Part 6: Spray booth, Handling system, Dust collection, Exhaust system, Filter*

EN 60974-1, *Arc welding equipment — Part 1: Welding power sources (IEC 60974-1)*

EN 60974-3, *Arc welding equipment — Part 3: Arc striking and stabilizing devices (IEC 60974-3)*

EN 60974-7, *Arc welding equipment — Part 7: Torches (IEC 60974-7)*

EN 60974-10, *Arc welding equipment — Part 10: Electromagnetic compatibility (EMC) requirements (IEC 60974-10)*

EN ISO 3821, *Gas welding equipment — Rubber hoses for welding, cutting and allied processes (ISO 3821)*

3 Function of thermal spraying equipment**3.1 General**

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

Thermal spray processes use flammable gases for flame-, plasma- or HVOF (high velocity oxygen fuel) spraying, which create significant potential hazards. Pure oxygen shall also be considered a dangerous gas, because relatively non-flammable material will burn in the presence of a certain concentration of oxygen.

Electrical devices are common sources for igniting an explosive atmosphere. Only spraying equipment which is suitable for the rated zone shall be operated.

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
-