



NSAI
Standards

Irish Standard
I.S. EN 15773:2018

Industrial application of powder organic coatings to hot dip galvanized or sherardized steel articles [duplex systems] - Specifications, recommendations and guidelines

I.S. EN 15773:2018

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:

EN 15773:2018

Published:

2018-01-17

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

2018-02-04

ICS number:

25.220.99

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

National Foreword

I.S. EN 15773:2018 is the adopted Irish version of the European Document EN 15773:2018, Industrial application of powder organic coatings to hot dip galvanized or sherardized steel articles [duplex systems] - Specifications, recommendations and guidelines

This document does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

For relationships with other publications refer to the NSAI web store.

Compliance with this document does not of itself confer immunity from legal obligations.

In line with international standards practice the decimal point is shown as a comma (,) throughout this document.

This page is intentionally left blank

EUROPEAN STANDARD

EN 15773

NORME EUROPÉENNE

EUROPÄISCHE NORM

January 2018

ICS 25.220.99

Supersedes EN 15773:2009

English Version

Industrial application of powder organic coatings to hot dip galvanized or sherardized steel articles [duplex systems] - Specifications, recommendations and guidelines

Application industrielle de revêtements en poudre organiques à des produits en acier galvanisés à chaud ou shérardisés [systèmes duplex] - Spécifications, recommandations et lignes directrices

Industrielle Pulverbeschichtung von feuerverzinkten und sherardisierten Stahlartikeln [Duplex-Systeme] - Spezifikationen, Empfehlungen und Leitlinien

This European Standard was approved by CEN on 6 November 2017.

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 CEN-CENELEC 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 CEN-CENELEC Management Centre has the same status as the official versions.

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, Serbia, 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: Rue de la Science 23, B-1040 Brussels

Contents	Page
European foreword.....	4
Introduction	5
1 Scope	7
2 Normative references.....	7
3 Terms and definitions	8
4 Ordering	9
4.1 General.....	9
4.2 Request for quotation.....	11
4.3 Information provision	11
4.4 Delivery of product prepared for coating	12
5 Fabrication	12
5.1 Surface condition of the steel.....	12
5.2 Nature and composition of the raw material	12
5.3 Welds, markings, labels	12
5.4 Deviations of edges and sides	13
6 Zinc coating and zinc surface	13
6.1 Cooling.....	13
6.2 Quality and inspection of the zinc coating	13
6.3 Surface preparation prior to pre-treatment for application of powder organic coatings.....	14
6.4 Storage, packaging and transport after galvanizing or sherardizing	14
6.5 Acceptance check	14
7 Pre-treatment of the zinc surface.....	14
7.1 General.....	14
7.2 Chemical pre-treatment.....	15
7.3 Mechanical pre-treatment (sweep blasting).....	15
8 Powder organic coating layers.....	16
8.1 General.....	16
8.2 Specification of powder organic coating.....	17
8.3 Repair of the coating system	17
9 Packaging, storage and further movement of finished products.....	17
10 Installation	17
11 Inspection of finished products	17
12 Health and safety.....	17
Annex A (normative) Considerations when designing and fabricating items for galvanizing or sherardizing and subsequent application of powder organic coatings.....	18
Annex B (informative) Guidance on the influence of steel surface chemistry on the surface condition and pre-treatment of galvanized or sherardized articles prior to application of powder organic coatings.....	19

Annex C (informative) Guidance on treatment of hot dip galvanized or sherardized articles prior to pre-treatment for application of powder organic coatings	21
C.1 Cooling.....	21
C.2 Prominent welds and sharp points on the zinc coating.....	21
C.3 Avoidance of condensation during storage, packaging and transport after galvanizing or sherardizing.....	21
Annex D (informative) Guidance on pre-treatment of hot dip galvanized or sherardized articles prior to the application of powder organic coatings	22
D.1 General	22
D.2 Mechanical pre-treatment.....	22
Bibliography	23

EN 15773:2018 (E)**European foreword**

This document (EN 15773:2018) has been prepared by Technical Committee CEN/TC 139 "Paints and Varnishes", 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 2018, and conflicting national standards shall be withdrawn at the latest by July 2018.

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.

This document supersedes EN 15773:2009.

The following changes have been made to the existing standard while developing the draft for enquiry:

- References to the sherardizing standard EN 13811 updated acknowledging the publication of EN ISO 17668.
- References to EN ISO 14713 were updated acknowledging the publication of Parts 1, 2 and 3.
- Clause 4.2 edited to include the reference to 'powder organic coating'.
- Clause 4.2 recommendation added to indicate that requirements for surface smoothness should be agreed.
- Clause 4.3 edited to reflect sherardizing coating thickness classes in EN ISO 17668.
- Clause 4.3 edited to reference sherardizer.
- Clause 5.3 edited to reference sherardizing process.
- New Clause 6.3 added to deal with surface preparation and paragraph 4 of existing Clause 6.2 transferred to the new clause.
- A reference to Annex C included in new Clause 6.3.
- Additional information included in Annex C regarding surface smoothness.
- Clauses 6.3 and 6.4 renumbered accordingly.
- Clause 7.1 edited to refer to Annex D not Annex C.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: 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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

In order to achieve a duplex system which satisfies the many varied aesthetic and performance requirements currently in existence in the marketplace, the following aspects of the supply and application of the systems should be controllable:

- fabrication and composition of the material (Clause 5);
- the zinc coating (Clause 6);
- surface smoothing for coating (Clause 6);
- environmental conditions during storage, transport and application (Clause 6);
- the pre-treatment of the zinc surface (Clause 7);
- instructions provided by chemical pre-treatment suppliers (Clause 7) and powder manufacturers (Clause 8);
- the powder organic coating system (Clause 8);
- packaging, storage and movement of finished products (Clause 9);
- installation (Clause 10);
- inspection (Clause 11).

This European Standard does not incorporate the application of paint coatings according to EN ISO 12944 (parts 1 to 8) [1] when paint systems are specified. This European Standard incorporates the application of coating powders according to EN 13438 when powder coatings are specified.

This standard might also be useful when supplying other organic coating systems (excluding wet paint systems).

Table 1 shows the relationship between this European Standard, EN 13438 and other standards relating to zinc coated articles.

EN 15773:2018 (E)

Table 1 — Standards for powder organic coatings and hot dip galvanized steel or sherardized steel

Galvanizing or sherardizing	Powder organic coatings for galvanized or sherardized steel products	Communications and quality issues surrounding supply of duplex coated articles
EN ISO 1461 EN 10240 EN 10346 EN ISO 17668	EN 13438 or specific product specification	EN 15773
<p>Good communications in place and agreements made between galvanizer or sherardizer and client regarding general quality requirements in relation to zinc coating.</p> <p>NOTE EN ISO 14713-2 and -3 also provide useful information on design for galvanizing and sherardizing respectively.</p>	<p>Good communications in place and agreements made between the client and the company applying the powder organic coating regarding general quality requirements of the powder organic coating.</p>	<p>Good communications in place and agreements made between client, galvanizer or sherardizer and applicator of the powder organic coating regarding quality requirements for duplex systems in relation to quality of zinc coating, the pre-treatment and powder organic coating.</p>

1 Scope

This European Standard specifies the agreements to be made between the client, the galvanizer / sherardizer, the chemical suppliers and the applicators of the pre-treatment and the powder organic coating systems (if they are not one and the same). It also specifies the quality of the galvanized or sherardized articles to which the powder organic coatings are to be applied and for the pre-treatment and powder organic coatings intended for application to the galvanized or sherardized articles.

This standard applies to the application of hot dip galvanized, sherardized and powder organic coatings by controlled industrial processes to articles consisting of or manufactured from steel. The standard applies to hot dip galvanized products, galvanized in accordance with EN ISO 1461 and EN 10240 or products sherardized in accordance with EN ISO 17668, as well as parts of these products manufactured from continuously galvanized sheet and strip galvanized in accordance with EN 10346, which, after the galvanizing and/or assembly, or sherardizing, will have a powder organic coating system applied. This standard also applies to products which have been hot dip galvanized or sherardized according to specific product standards to which powder organic systems are applied.

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 10021, *General technical delivery conditions for steel products*

EN 10130, *Cold rolled low carbon steel flat products for cold forming — Technical delivery conditions*

EN 10163-1, *Delivery requirements for surface condition of hot-rolled steel plates, wide flats and sections — Part 1: General requirements*

EN 10163-2, *Delivery requirements for surface condition of hot-rolled steel plates, wide flats and sections — Part 2: Plate and wide flats*

EN 10163-3, *Delivery requirements for surface condition of hot-rolled steel plates, wide flats and sections — Part 3: Sections*

EN 10221, *Surface quality classes for hot-rolled bars and rods — Technical delivery conditions*

EN 10240, *Internal and/or external protective coatings for steel tubes — Specification for hot dip galvanized coatings applied in automatic plants*

EN 10346, *Continuously hot-dip coated steel flat products for cold forming — Technical delivery conditions*

EN 13438, *Paints and varnishes — Powder organic coatings for hot dip galvanised or sherardised steel products for construction purposes*

EN ISO 1461, *Hot dip galvanized coatings on fabricated iron and steel articles — Specifications and test methods (ISO 1461)*

EN ISO 5817, *Welding - Fusion-welded joints in steel, nickel, titanium and their alloys (beam welding excluded) — Quality levels for imperfections (ISO 5817)*

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](#)
-