



National Standards Authority of Ireland

STANDARD

I.S. EN 10327:2004

ICS 77.140.50

**CONTINUOUSLY HOT-DIP COATED STRIP
AND SHEET OF LOW CARBON STEELS FOR
COLD FORMING - TECHNICAL DELIVERY
CONDITIONS**

National Standards
Authority of Ireland
Dublin 9
Ireland

Tel: (01) 807 3800
Fax: (01) 807 3838

*This Irish Standard was
published under the
authority of the National
Standards Authority of
Ireland
and comes into effect on:
August 18, 2004*

**NO COPYING WITHOUT NSAI
PERMISSION EXCEPT AS
PERMITTED BY COPYRIGHT
LAW**

© NSAI 2004

Price Code

Údarás um Chaighdeán Náisiúnta na hÉireann

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 10327

July 2004

ICS 77.140.50

Supersedes EN 10142:2000,
EN 10154:2002,
EN 10214:1995,
and EN 10215:1995

English version

**Continuously hot-dip coated strip and sheet of low carbon steels
for cold forming - Technical delivery conditions**

Bandes et tôles en acier doux revêtues en continu par
immersion à chaud pour formage à froid - Conditions
techniques de livraison

Kontinuierlich schmelztauchveredeltes Band und Blech aus
weichen Stählen zum Kaltumformen - Technische
Lieferbedingungen

This European Standard was approved by CEN on 23 April 2004.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

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



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

Management Centre: rue de Stassart, 36 B-1050 Brussels

Contents

	page
Foreword.....	3
1 Scope	4
2 Normative references	4
3 Terms and definitions	5
4 Classification and designation.....	5
4.1 Classification.....	5
4.2 Designation	6
5 Information to be supplied by the purchaser	6
5.1 Mandatory information	6
5.2 Options	7
6 Manufacturing process	7
7 Requirements	8
7.1 Chemical composition	8
7.2 Mechanical properties	8
7.3 Coatings.....	10
7.4 Coating finish (see Tables 4 to 6).....	10
7.5 Surface quality	11
7.6 Surface treatment (surface protection)	14
7.7 Freedom from coil breaks	15
7.8 Stretcher strains	15
7.9 Coating mass	16
7.10 Adhesion of coating	16
7.11 Surface condition.....	16
7.12 Tolerances on dimensions and shape	16
7.13 Suitability for further processing	16
8 Testing	17
8.1 General.....	17
8.2 Test units	17
8.3 Number of tests.....	17
8.4 Sampling	17
8.5 Test methods.....	18
8.6 Retests	19
9 Marking	19
10 Packing	19
11 Storage and transportation.....	19
12 Disputes	19
Annex A (normative) Reference method for determination of the zinc, zinc-aluminium and aluminium-zinc coating mass.....	20
Annex B (normative) Reference method for determination of the aluminium-silicon coating mass	21
Annex C (normative) Method for determination of the mass of the Al-Fe-Si alloy layer.....	22
Bibliography	23

Foreword

This document (EN 10327:2004) has been prepared by Technical Committee ECISS/TC 27 “Surface coated flat products – Qualities, dimensions, tolerances and specific tests”, 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 January 2005, and conflicting national standards shall be withdrawn at the latest by January 2005.

This European Standard supersedes EN 10142:2000 and, together with EN 10326, it also supersedes EN 10154:2002, EN 10214:1995 and EN 10215:1995.

This document includes a Bibliography.

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

EN 10327:2004 (E)

1 Scope

1.1 This document specifies requirements for continuously hot-dip coated products made of low carbon steels for cold forming coated with zinc (Z), zinc-iron alloy (ZF), zinc-aluminium alloy (ZA), aluminium-zinc alloy (AZ) and aluminium-silicon alloy (AS) (see Table 1) with thicknesses of 0,35 mm to 3,0 mm unless otherwise agreed (see 1.2). The thickness is the final thickness of the delivered product after coating.

This document applies to strip of all widths and to sheets cut from it (≥ 600 mm width) and cut lengths (< 600 mm width).

1.2 If agreed at the time of enquiry and order, this document may also be applied to continuously hot-dip coated flat products in thicknesses $> 3,0$ mm. In this case the mechanical property, adhesion of coating and surface condition requirements shall also be agreed at the time of enquiry and order.

1.3 The products covered by this document are mainly used where cold formability and corrosion resistance are the most important factors. Corrosion resistance of the alloy is proportional to the coating thickness, hence to its mass (see also 7.3.2).

1.4 This document is not applicable to:

- continuously hot-dip coated structural steel flat products (see EN 10326);
- electrolytically zinc coated cold rolled steel flat products (see EN 10152);
- continuously organic coated (coil coated) steel flat products (see EN 10169-1, ENV 10169-2 and EN 10169-3);
- continuously hot-dip coated strip and sheet of steels with higher yield strength for cold forming (see EN 10292).

2 Normative references

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

EN 10002-1, *Metallic materials – Tensile testing – Part 1: Method of test at ambient temperature.*

EN 10020:2000, *Definition and classification of grades of steel.*

EN 10021:1993, *General technical delivery requirements for steel and steel products.*

EN 10027-1, *Designation systems for steels – Part 1: Steel names, principal symbols.*

EN 10027-2, *Designation systems for steels – Part 2: Numerical system.*

EN 10079:1992, *Definition of steel products.*

EN 10143, *Continuously hot-dip metal coated steel sheet and strip - Tolerances on dimensions and shape.*

EN 10204:1991, *Metallic products – Types of inspection documents.*

ISO 10113, *Metallic materials – Sheet and strip – Determination of plastic strain ratio.*

ISO 10275, *Metallic materials – Sheet and strip – Determination of tensile strain hardening exponent.*

CR 10260, *Designation systems for steel – Additional symbols.*

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
-