



National Standards Authority of Ireland

IRISH STANDARD

I.S. EN 12373-1:2001

ICS 25.220.20

77.120.10

**ALUMINIUM AND ALUMINIUM ALLOYS -
ANODISING -
PART 1: METHOD FOR SPECIFYING
DECORATIVE AND PROTECTIVE ANODIC
OXIDATION COATINGS ON ALUMINIUM**

National Standards
Authority of Ireland
Dublin 9
Ireland

Tel: (01) 807 3800

Tel: (01) 807 3838

*This Irish Standard was
published under the
authority of the National
Standards Authority of
Ireland
and comes into effect on:
October 26, 2001*

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

© NSAI 2001

Price Code J

Údarás um Chaighdeáin Náisiúnta na hÉireann

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 12373-1

May 2001

ICS 25.220.20; 77.120.10

English version

**Aluminium and aluminium alloys - Anodizing - Part 1: Method for
specifying decorative and protective anodic oxidation coatings
on aluminium**

Aluminium et alliages d'aluminium - Anodisation - Partie 1:
Méthode de spécification des caractéristiques des
revêtements décoratifs et protecteurs obtenus par
oxydation anodique sur aluminium

Aluminium und Aluminiumlegierungen - Anodisieren - Teil
1 Methode zur Spezifizierung dekorativer und schützender
anodisch erzeugter Oxidschichten auf Aluminium

This European Standard was approved by CEN on 20 April 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 bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITE EUROPEEN DE NORMALISATION
EUROPAISCHES KOMITEE FÜR NORMUNG

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

Contents	Page
Foreword.....	3
1 Scope	5
2 Normative references.....	5
3 Terms and definitions	7
4 Information to be supplied by the purchaser to the anodizer.....	9
5 Tests.....	12
6 Coating thickness.....	12
7 Quality of sealing.....	14
8 Quality of cold impregnation.....	15
9 Appearance and colour	15
10 Corrosion resistance	16
11 Abrasion resistance	16
12 Resistance to cracking by deformation.....	16
13 Fastness to light and to ultraviolet radiation.....	16
14 Light reflection properties	17
15 Electric breakdown potential	19
16 Continuity of the coating	19
17 Mass per unit area (surface density) of the coating	19
Annex A (informative) Guide to grades of aluminium for anodizing	20
Annex B (informative) Guidance on surface preparation.....	22
Annex C (normative) Interpretation of average and local thickness requirements	24
Annex D (informative) Guidance on the choice of coating thickness class	25
Annex E (informative) Guidance on cleaning materials for external architectural applications.....	26
Bibliography	27

Foreword

This European Standard has been prepared by Technical Committee CEN/TC 132 "Aluminium and aluminium alloys", the secretariat of which is held by AFNOR.

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 November 2001, and conflicting national standards shall be withdrawn at the latest by November 2001.

In this standard, annex C is normative and annexes A, B, D and E are informative.

EN 12373, Aluminium and aluminium alloys – Anodizing, comprises the following parts:

- Part 1: Method for specifying decorative and protective anodic oxidation coatings on aluminium
- Part 2: Determination of mass per unit area (surface density) of anodic oxidation coatings – Gravimetric method
- Part 3: Determination of thickness of anodic oxidation coatings – Non-destructive measurement by split beam microscope
- Part 4: Estimation of loss of absorptive power of anodic oxidation coatings after sealing by dye spot test with prior acid treatment
- Part 5: Assessment of quality of sealed anodic oxidation coatings by measurement of admittance
- Part 6: Assessment of quality of sealed anodic oxidation coatings by measurement of the loss of mass after immersion in phosphoric acid/chromic acid solution without prior acid treatment
- Part 7: Assessment of quality of sealed anodic oxidation coatings by measurement of the loss of mass after immersion in phosphoric acid/chromic acid solution with prior acid treatment
- Part 8: Determination of the comparative fastness to ultra-violet light and heat of coloured anodic oxidation coatings
- Part 9: Measurement of wear resistance and wear index of anodic oxidation coatings using an abrasive wheel wear test apparatus
- Part 10: Measurement of mean specific abrasion resistance of anodic oxidation coatings using an abrasive jet test apparatus
- Part 11: Measurement of specular reflectance and specular gloss of anodic oxidation coatings at angles of 20°, 45°, 60° or 85°
- Part 12: Measurement of reflectance characteristics of aluminium surfaces using integrating-sphere instruments
- Part 13: Measurement of reflectivity characteristics of aluminium surfaces using a goniophotometer or an abridged goniophotometer
- Part 14: Visual determination of image clarity of anodic oxidation coatings – Chart scale method
- Part 15: Assessment of resistance of anodic oxidation coatings to cracking by deformation

Page 4

EN 12373-1:2001

- Part 16: Check for continuity of thin anodic oxidation coatings – Copper sulfate test
- Part 17: Determination of electric breakdown potential
- Part 18: Rating system for the evaluation of pitting corrosion – Chart method
- Part 19: Rating system for the evaluation of pitting corrosion – Grid method

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.

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
-