



National Standards Authority of Ireland

IRISH STANDARD

I.S. EN 14866:2006

ICS 25.220.50

**VITREOUS AND PORCELAIN ENAMELS -
REGENERATIVE, ENAMELLED AND PACKED
PANELS FOR AIR-GAS AND GAS-GAS HEAT
EXCHANGERS - SPECIFICATIONS**

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English Version

Vitreous and porcelain enamels - Regenerative, enamelled and packed panels for air-gas and gas-gas heat exchangers - Specifications

Emaux vitrifiés - Echangeurs thermiques pour réchauffeurs air-gaz et gaz-gaz à empilement de panneaux émaillés remplaçables et démontables - Spécifications

Emails und Emailierungen - Regenerative, emailierte und gepackte Bleche für Luft-Gas- und Gas-Gas-Wärmeaustauscher - Anforderungen

This European Standard was approved by CEN on 14 November 2005.

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.



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Foreword

This European Standard (EN 14866:2005) has been prepared by Technical Committee CEN/TC 262 "Metallic and other inorganic coatings", the secretariat of which is held by BSI.

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of an identical text or by endorsement, at the latest by June 2006, and conflicting national standards shall be withdrawn at the latest by June 2006.

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 14866:2005 (E)

1 Scope

This European Standard specifies the minimum requirements and the functional characteristics of enamel coatings applied by any enamel process, such as: wet dipping, wet flow-coating, wet spraying, wet electrostatic spraying, wet electro deposition or dry powder electrostatic spraying, to profiled steel heat exchanger panels in regenerative heat exchangers, before and after packing in baskets.

NOTE For very severe service conditions, or to obtain extended operation life, more stringent limits may be agreed between customer and supplier.

2 Normative references

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

EN 10204:2004, *Metallic products — Types of inspection documents*

EN 10209:1996, *Cold-rolled low carbon steel flat products for vitreous enamelling — Technical delivery conditions*

EN 14483-2:2004, *Vitreous and porcelain enamels — Determination of resistance to chemical corrosion — Part 2: Determination of resistance to chemical corrosion by boiling acids, neutral liquids and/or their vapours*

EN 14863, *Vitreous and porcelain enamels — Determination of the edge covering on enamelled steel plate to be used in heat exchangers*

EN ISO 105-J03, *Textiles — Tests for colour fastness — Part J03: Calculation of colour differences (ISO 105-J03:1995, including Technical Corrigendum 1:1996)*

EN ISO 2178, *Non-magnetic coatings on magnetic substrates — Measurement of coating thickness — Magnetic method (ISO 2178:1982)*

EN ISO 8289:2001, *Vitreous and porcelain enamels — Low voltage test for detecting and locating defects (ISO 8289:2000)*

ISO 2723, *Vitreous and porcelain enamels for sheet steel — Production of specimens for testing*

ISO 4534, *Vitreous and porcelain enamels — Determination of fluidity behaviour — Fusion flow test*

ISO 7991, *Glass — Determination of coefficient of mean linear thermal expansion*

3 Terms and definitions

For the purpose of this European Standard, the following terms and definitions apply.

3.1

blisters

localised bubbles under the surface of the fired enamel

3.2

burn-off

localised areas of rough black oxide erupting through the enamel coating

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