SLOVENSKI STANDARD
SIST EN 10238:1998

01-avgust-1998

Avtomatsko opeskani in avtomatsko preoblikovani ter dodelani izdelki iz konstrukcijskih jekel

Automatically blast-cleaned and automatically prefabricated primed structural steel products

Automatisch gestrahlte und automatisch fertigungsbeschichtete Erzeugnisse aus Baustählen

Produits en aciers de construction grenaillés et prépeints par traitement automatique

Ta slovenski standard je istoveten z: **EN 10238:1996**

ICS:

77.140.10 Jekla za toplotno obdelavo Heat-treatable steels

SIST EN 10238:1998 **en**

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Descriptors: iron and steel products, shot blasted painted products, steels, prefabrication primers, designation, characteristics, manufacturing, preparation grade, thickness, welding, storage, marking, information

English version

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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.

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart,36 B-1050 Brussels

Contents

Foreword

This European Standard has been prepared by Technical Committee ECISS/TC 10 "Structural steels - Qualities", the secretariat of which is held by NNI.

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of an identical text or by endorsement, at the latest by March 1997, and conflicting national standards shall be withdrawn at the latest by March 1997.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard : Austria, Belgium, Denmark, Findland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzland and the United Kingdon .

1 Scope

This European Standard specifies requirements for automatically blast-cleaned and automatically prefabrication primed structural steel products.

This European Standard does not cover manual blast cleaning and /or manual spray painting.

NOTE : Where the steel is less than 5 mm thick, care should be exercised to ensure it is not deformed by blast cleaning.

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 10021	Iron and steel products - General technical delivery conditions
EN 10025	Hot-rolled products of non alloy structural steels - Technical delivery conditions
EN 10113-2	Hot-rolled products in weldable fine grain structural steels - Delivery conditions for normalized/normalized rolled steels
EN 10204	Metallic products - Types of inspection documents
EN ISO 8503-2	Preparation of steel substrates before application of paints and related products - Surface roughness characteristics of blast cleaned steel substrates - Part 2 : Method for the grading of surface profile of abrasive blast cleaned steel - Comparator procedure
ISO 2808	Paints and varnishes - Determination of film thickness
ISO 8501-1	Preparation of steel substrates before application of paints and related products - Visual assessment of surface cleanliness - Part 1 : Rust grades and preparation grades of uncoated steel substrates and of steel substrates after overall removal of previous coatings

3 Definitions

For the purposes of this European Standard, the following definitions apply :

3.1 automatic blast cleaning

The use of mechanical plant where the product being blast cleaned is passed through a machine where turbines are used to project the abrasive onto the steel in a uniform manner.

3.2 automatic priming

After automatic blast cleaning, the product is primed by passing through a paint booth where reciprocating paint guns apply a continuous coating to the required thickness.

3.3 prefabrication primer

Prefabrication primer is a thin coating which is automatically applied to blast cleaned steel and serves to provide temporary corrosion protection for steel components during their processing, transport and storage.

4 Information to be supplied by the purchaser

4.1 Mandatory information

The following information shall be supplied by the purchaser at the time of enquiry and order :

- designation of the steel ;
- type of prefabrication primer (see 9.1 - table 1) ;
- type of inspection document (clause 12).

4.2 Additional optional information

- preparation grade if different from Sa 2½ (clause 7) ;
- surface roughness if specified (clause 8) ;
- dry film thickness if different from that given in 9.1 ;
- information on manufacturing process (clause 6) ;
- flame cutting and weldability characteristics of prefabrication primers (clause 10) ;
- special requirements for marking (clause 13) ;
- position of test pieces (annex A).

In the event that the purchaser does not indicate his wish to implement any of the additional information, the manufacturer shall supply the blast cleaned and primed product in accordance with the basic specification.

5 Designation

The products covered by this European Standard shall be designated as follows, in the order given :

- type of product (plate, beam...) ;

- number of this European Standard (EN 10238) ;

- preparation grade (see clause 7) ;

- if the surface roughness is specified at time of enquiry and order, the surface roughness agreed ;

- type of prefabrication primer (see 9.1) ;

- nominal prefabrication dry film thickness if it differs from that specified in this Standard (see 9.1) ;

- designation of steel following the appropriate Standard.

EXAMPLE 1 :

Designation of H heavy section made of steel S275N (or 1.0486) in accordance with EN 10113-2, with preparation grade Sa 2½ coated with epoxy-zinc (EPZ).

H heavy section EN 10238-Sa 2½-EPZ - EN 10113-2 - S275N ;

or

H heavy section EN 10238-Sa 2½-EPZ - EN 10113-2 - 1.0486.

EXAMPLE 2 :

Designation of a nominal dry film thickness different from that specified in this standard and agreed at the time of the enquiry and order and with a roughness also agreed at the time of order.

Sheet made of steel S275JR (or 1.0044) in accordance with EN 10025 with preparation grade Sa 2½ with roughness F, coated on both sides with polyvinyl butyral-iron oxide (PVBF), with nominal thickness 15 µm.

Sheet EN 10238-Sa 2½-F-PVBF15 - EN 10025 - S275JR ;

or

Sheet EN 10238-Sa 2½-F-PVBF15 - EN 10025 - 1.0044.

6 Manufacture

The surface treatment process and application of prefabrication primer shall be at the manufacturer's discretion.

If specified at the time of the enquiry and order, this shall be provided to the purchaser.

At the end of production line, repairs to any damaged areas of the primer shall be undertaken to ensure they meet the requirements of this European Standard

7 Preparation grade

Unless otherwise agreed at the time of enquiry and order, the preparation grade, as specified in accordance with ISO 8501-1 shall be Sa 2½ minimum.

Appearance variations resulting from :

- the steel grade,
- surface condition of the steel,
- thickness of the steel,
- consequences of the heat treatment,
- marks from the fabrication of the steel

shall be deemed acceptable provided they do not affect the preparation grade.

8 Surface roughness

At the time of enquiry and order, a surface roughness classmay be specified , in which case, it shall be given in the product designation using the symbols F for fine, M for medium and C for coarse.

The measurement method to be used shall be in accordance with ISO 8503-2.

9 Prefabrication primers

9.1 Types of prefabrication primers

Table 1 lists the most commonly used groups of primers.

The most usual nominal thickness specified is 20 µm ± 5 µm.

In case of sections, greater dry film thicknesses in single regions are permitted.

Table 1 : Prefabrication primers

Basic Characteristic		Symbol
Binder	Pigmentation	
Epoxy (EP)	Iron oxide (F)	EPF
Polyvinyl butyral (PVC)	Iron oxide (F)	PVBF
Alkyd (AK)	Iron oxide (F)	AKF
Acrylic (AY)	Iron oxide (F)	AYF
Epoxy (EP)	Zinc dust (Z)	EPZ
Ethyl - Silicate (ESI)	Zinc dust (Z)	ESIZ