

Steel products — Inspection documents — List of information and description

The European Standard EN 10168:2004 has the status of a
British Standard

ICS 01.110; 77.080.20; 77.140.01

NO COPYING WITHOUT BSI PERMISSION EXCEPT AS PERMITTED BY COPYRIGHT LAW

Copyright European Committee for Standardization
Provided by IHS under license with CEN
No reproduction or networking permitted without license from IHS

Not for Resale

National foreword

This British Standard is the official English language version of EN 10168:2004.

The UK participation in its preparation was entrusted to Technical Committee ISE/5, Technical delivery conditions, classification and designation of steels, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this committee can be obtained on request to its secretary.

Cross-references

The British Standards which implement international or European publications referred to in this document may be found in the *BSI Catalogue* under the section entitled “International Standards Correspondence Index”, or by using the “Search” facility of the *BSI Electronic Catalogue* or of British Standards Online.

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

Compliance with a British Standard does not of itself confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 24 June 2004

Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 12, an inside back cover and a back cover.

The BSI copyright notice displayed in this document indicates when the document was last issued.

Amendments issued since publication

Amd. No.	Date	Comments

© BSI 24 June 2004

ISBN 0 580 43982 8

EUROPEAN STANDARD

EN 10168

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 2004

ICS 01.110; 77.080.20; 77.140.01

English version

Steel products - Inspection documents - List of information and description

Produits en acier - Documents de contrôle - Liste et description des informations

Stahlerzeugnisse - Prüfbescheinigungen - Liste und Beschreibung der Angaben

This European Standard was approved by CEN on 19 March 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

© 2004 CEN. All rights of exploitation in any form and by any means reserved worldwide for CEN national Members.

Ref. No. EN 10168:2004: E

Contents

page

Foreword.....	3
1 Scope	4
2 Normative references	4
3 Terms and definitions	4
4 Principles	4
5 Information description	5
Annex A (normative) List of the section designations and their corresponding translations	11



Foreword

This document (EN 10168:2004) has been prepared by Technical Committee ECISS/TC 9 “Technical conditions of delivery and quality control”, the secretariat of which is held by IBN.

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 December 2004, and conflicting national standards shall be withdrawn at the latest by December 2004.

Annex A is normative.

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.

**This document is now
PUBLIC**

1 Scope

This European Standard lists the information that may be communicated in and includes a brief description of the inspection documents of steel products as described in EN 10204.

By laying down standardized designations and definitions for information likely to appear in inspection documents and by introducing code numbers for each of the designated sections, this European Standard intends to contribute to the elimination of communication difficulties in European trade.

NOTE These designations may also be used in delivery documents.

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 (including amendments).

EN 10204, *Metallic products - Types of inspection documents*.

3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in EN 10204 apply.

4 Principles

All types of inspection documents specified in EN 10204 have as a common element groups of information which make it possible to assign them clearly to the corresponding products supplied (see Table 1, information groups A and B).

All inspection documents, except for the type 2.1 document "Declaration of compliance with the order", contain information on non-specific or specific tests carried out on the basis of the relevant product specification (see Table 1, information groups C and D).

In all types of inspection documents a statement on the conformity of the products delivered with the requirements of the order shall be included (see Table 1, information group Z).

The organization responsible for supplying an inspection document may vary the sequence and the lay-out of the information given in clause 5 and Tables 2 to 5. It may also delete unnecessary sections depending on the product.

The code number for the different sections in Tables 2 to 5 is unique. Other numbers shall not be used.

The section designations given in Tables 2 to 5 should be given in the relevant sections of the inspection documents. They may be abbreviated if no misunderstanding is caused (e.g. 'direction' instead of 'direction of the test piece').

If there is not enough room in a section for the required information, a reference to a supplement or a free section in the inspection document may be used for the section in question. In this case, the information shall be given in the supplement or in the free section under the corresponding code number.

5 Information description

The inspection documents contain the information groups listed in Table 1. Among these information groups, a distinction is made between information sections having specific code numbers and information sections having code numbers which can be freely used.

The specific code numbers are given in Tables 2 to 5, column 1. The title of each section in the second column of these tables indicates as precisely as possible the information to be included. The third column of Tables 2 to 5 contains comments explaining and specifying the subject of the sections.

The code numbers which may be freely used as given in Table 1 and Tables 2 to 5 are available for supplementary information supplied by the originator of the document.

Table 1 — Information groups and summary of their subdivision

Symbol	Information group on	Specific sections	Available sections	See Table
		from - to	from - to	
A	Commercial transactions and parties involved	A 01 - A 09	A 10 - A 99	2
B	Description of products	B 01 - B 13	B 14 - B 99	3
C	Inspection General information Tensile test Hardness test Notched-bar impact test Other mechanical tests Chemical composition and steelmaking process	C 00 - C 03 C 10 - C 13 C 30 - C 32 C 40 - C 43 C 70 - C 92	C 04 - C 09 C 14 - C 29 C 33 - C 39 C 44 - C 49 C 50 - C 69 C 93 - C 99	4
D	Other tests	D 01 - D 50	D 51 - D 99	5
Z	Validation	Z 01 - Z 04	Z 05 - Z 99	5

**This document is now
PUBLIC**

**Table 2 — Code numbers and designations of the sections of information group A —
Commercial transactions and parties involved**

No	Section designation	Comments
A 01	Manufacturer's works	Name and address of the works where the products were manufactured.
A 02	Type of inspection document	As defined in EN 10204.
A 03	Document number	Number fixed by the originator of the document. This document number may be followed by a figure corresponding to the page number in the case of an inspection document comprising several pages.
A 04	Manufacturer's mark	Symbol for identification of the manufacturer which is used for marking the products instead of the manufacturer's name.
A 05	Originator of the inspection document	This may be an inspection organization or the qualified department of the manufacturing works.
A 06	Customer consignee	Name and, if necessary, address either of the customer, the consignee or the consignee of the certificate, this information being referred to as A 06.1, A 06.2 and A 06.3.
A 07	Purchaser's order number and, where applicable, item number	Order number, item number and, if necessary, the date.
A 08	Manufacturer's works order number	Order number and, if necessary, the date or the acknowledgement number.
A 09	Customer article number	Reference number by the customer to the products to be supplied. This article number is not a mandatory information to be given by the customer at the time of ordering.
A 10 to A 99	Supplementary information	Available for information on commercial transactions and parties involved.

**This document is now
PUBLIC**

**Table 3 — Code numbers and designations of the sections of information group B —
Description of products to which the inspection documents apply**

No	Section designation	Comments
B 01	Product	Description of the product form (e.g. : heavy plate, section, wide flat, tube, hollow section, etc.) and, where appropriate, surface condition, with reference to the dimensional standard, if applicable.
B 02	Steel designation	Steel name or number and additional symbols and the product specification for the steel.
B 03	Any supplementary requirements	This section is for indicating special requirements, agreed at the time of ordering, not appearing in sections B 01 and B 02.
B 04	Product delivery condition	Delivery condition of the products as specified in the applicable product specification.
B 05	Reference (heat) treatment of samples	Reference (heat) treatment of samples refers to the (heat) treatment applied to samples on which tests are to be carried out to verify the mechanical properties. This section is only applicable if the treatment condition of the sample is different from the delivery condition.
B 06	Marking of the product	Available for information on marking.
B 07	Identification of the product	Indications for the traceability of the products, e.g. cast number, ingot number, rolling number, batch number, test number.
B 08	Number of pieces	Number of pieces supplied (this may refer to the article number of section A 09).
B 09 to B 11	Product dimensions	The dimensions are the nominal dimensions of the products ordered. For non-standardized products of complex shape, add information such as 'in compliance with figure xyz', to be included in the annexed documents.
B 12	Theoretical mass	Mass calculated from the nominal dimensions of the products and based on the specified density.
B 13	Actual mass	Mass determined at the time of delivery, e.g. by weighing.
B 14 to B 99	Supplementary information	Available for information on the description of products (see clause 5, paragraph 3).

© 2004 European Committee for Standardization



Table 4 — Code numbers and designations of the sections of information group C — Information on sampling and testing

N°	Section designation	Comments
General information		
C 00	Identification of the sample	This information is only required if it differs from the identification of the product (see B 07).
C 01	Location of the sample	The location from where the sample is taken is specified by the product specification, or by order. This information is only necessary in the following cases: -the product specification specifies various locations for the test; -the product specification offers a choice of locations for the test. In these cases, the location from where the sample is taken is described, for example, by indicating its position in relation to the length, width and/or thickness of the product, or, in the case of welded tubes, in relation to base material and weld.
C 02	Direction of the test pieces	The direction of the test pieces is defined by the product specification in relation to the main direction of deformation, and sometimes, in relation to the geometry of the product. The following symbols shall be used: - for longitudinal test pieces: the letter L; - for transverse test pieces: the letter T; - for test pieces in the thickness direction: the letter Z. If it is in the diagonal direction this shall be mentioned here.
C 03	Test temperature	-
C 04 to C 09	Supplementary information	Available for general information on inspection (see clause 5, paragraph 3).
Tensile test		
C 10	Shape of the test piece	Generally, the product specification specify the shape to be used for the test piece. If it is allowed to choose from several possibilities, the transverse cross-section of the test piece and, where appropriate, other details shall be mentioned.
C 11	Yield or proof strength	Yield or proof strength recorded in MPa.
C 12	Tensile strength	Tensile strength recorded in MPa.
C 13	Elongation after fracture	Recorded elongation in % after fracture. If proportional test pieces are not used, or used with a coefficient of proportionality different from 5,65, the gauge length shall be mentioned at the top of the section.
C14 to C29	Supplementary information	Available for general information on the tensile test (see clause 5, paragraph 3).

**This document is now
PUBLIC**

Table 4 — Code numbers and designations of the sections of information group C — Information on sampling and testing (concluded)

No	Section designation	Comments
Hardness test		
C 30	Method of test	The symbol for the method of hardness test.
C 31	Individual values	Measured hardness values in the units specified in the product specification.
C 32	Mean value	Mean of the individual values.
C 33 to C 39	Supplementary information	Available for information on the hardness test (see clause 5, paragraph 3).
Notched - bar impact test		
C 40	Type of test piece	In this section, the type of test piece shall be noted.
C 41	Width of test piece	If subsize specimens are used, the actual width of the specimens shall be noted.
C 42	Individual values	Measured impact values in the units specified in the product specification.
C 43	Mean value	Mean of the individual values.
C 44 to C 49	Supplementary information	Available for information on the notched-bar impact test (see clause 5, paragraph 3).
Other mechanical tests		
C 50 to C 69	Supplementary information	Available for information on other mechanical tests.
Chemical composition and steelmaking process		
C 70	Steelmaking process	Information on the steelmaking process.
C 71 to C 92	Chemical composition	The only chemical element contents or combination thereof which shall be mentioned here are those for which the product specification gives specific values. The corresponding symbols shall be given at the top of the column. In the case of a product analysis, in addition to the cast number, the identification of the product or the identification of the sample shall be given (see B 07 or C 00).
C 93 to C 99	Supplementary information	Available for supplementary information on the chemical composition (see clause 5, paragraph 3).

This document is now
PUBLIC

**Table 5 — Code numbers and designation of section of information groups
D - Information on other tests - and Z - Validation**

No	Section designation	Comments
Product tests		
D 01	Marking and identification, surface appearance, shape and dimensional properties	Statement that the inspection was carried out and that the results were satisfactory.
D 02 to D 50	Non-destructive tests	Covers non-destructive tests, e.g. dye penetrant, magnetic particle inspection. Statement that the inspection was carried out and that the results were satisfactory.
D 51 to D 99	Supplementary information	Available for other product tests to (see clause 5, paragraph 3). Statement that the inspection was carried out and that the results were satisfactory.
Validation		
Z 01	Statement of compliance	Manufacturer's declaration that the product is in compliance with the order.
Z 02	Date of issue and validation	Identification of the person(s) authorized in accordance with EN 10204 to validate the inspection document.
Z 03	Stamp of the inspection representative	-
Z 04	CE marking	Available for information on CE marking.
Z 05 to Z 99	Supplementary information	Available for other validations (see clause 5, paragraph 3).



Annex A (normative)

List of the section designations and their corresponding translations

Code number	Section designation		
	English	German	French
A 01	Manufacturer's works	Herstellerwerk	Usine productrice
A 02	Type of inspection document	Art der Prüfbescheinigung	Type de document de contrôle
A 03	Document number	Bescheinigungsnummer	Numéro de document
A 04	Manufacturer's mark	Zeichen des Herstellers	Marque du producteur
A 05	Originator of the document	Aussteller der Bescheinigung	Auteur du document
A 06	Customer/consignee	Besteller/Empfänger	Acheteur/destinataire
A 07	Purchaser's order number and where applicable item number	Kundenbestellnummer und gegebenenfalls Positionsnummer	Numéro de la commande du client et numéro du poste de commande si applicable
A 08	Manufacturer's works order number	Werksauftragsnummer	Numéro de la commande de l'usine productrice
A 09	Customer article number	Artikelnummer des Kunden	Numéro d'article du client
A 10 to A 99	Supplementary information	Ergänzende Angaben	Informations complémentaires
B 01	Product	Erzeugnis	Produit
B 02	Steel designation	Stahlbezeichnung	Désignation de l'acier
B 03	Any supplementary requirements	Zusätzliche Anforderungen	Prescriptions supplémentaires
B 04	Product delivery condition	Lieferzustand	Etat de livraison
B 05	Reference (heat) treatment of samples	Referenz(wärme)behandlung von Probenabschnitten	Traitement (thermique) de référence des échantillons
B 06	Marking of the product	Kennzeichnung des Erzeugnisses	Marquage du produit
B 07	Identification of the product	Identifizierung des Erzeugnisses	Identification du produit
B 08	Number of pieces	Stückzahl	Nombre de pièces
B 09 to B 11	Product dimensions	Maße des Erzeugnisses	Dimensions du produit
B 12	Theoretical mass	Theoretische Masse	Masse théorique
B 13	Actual mass	Ist-Masse	Masse effective
B 14 to B 99	Supplementary information	Ergänzende Angaben	Informations complémentaires
C 00	Identification of the sample	Identifizierung des Probenabschnittes	Identification de l'échantillon
C 01	Location of the sample	Lage des Probenabschnittes	Emplacement du prélèvement des éprouvettes
C 02	Direction of the test pieces	Probenrichtung	Orientation des éprouvettes
C 03	Test temperature	Prüftemperatur	Température d'essai
C 04 to C 09	Supplementary information	Ergänzende Angaben	Informations complémentaires

Code number	Section designation		
	English	German	French
C 10	Shape of the test piece	Probenform	Forme de l'éprouvette
C 11	Yield or proof strength	Streck- oder Dehngrenze	Limite apparente ou limite conventionnelle d'élasticité
C 12	Tensile strength	Zugfestigkeit	Résistance à la traction
C 13	Elongation after fracture	Bruchdehnung	Allongement après rupture
C 14 to C 29	Supplementary information	Ergänzende Angaben	Informations complémentaires
C 30	Method of test	Prüfverfahren	Méthode d'essai
C 31	Individual values	Einzelwerte	Valeurs individuelles
C 32	Mean value	Mittelwert	Valeur moyenne
C 33 to C 39	Supplementary information	Ergänzende Angaben	Informations complémentaires
C 40	Type of test piece	Probenform	Type de l'éprouvette
C 41	Width of test piece	Probenbreite	Largeur de l'éprouvette
C 42	Individual values	Einzelwerte	Valeurs individuelles
C 43	Mean value	Mittelwert	Valeur moyenne
C 44 to C 49	Supplementary information	Ergänzende Angaben	Informations complémentaires
C 50 to C 69	Supplementary information	Ergänzende Angaben	Informations complémentaires
C 70	Steelmaking process	Stahlherstellungverfahren	Mode d'élaboration de l'acier
C 71 to C 92	Chemical composition	Chemische Zusammensetzung	Composition chimique
C 93 to C 99	Supplementary information	Ergänzende Angaben	Informations complémentaires
D 01	Marking and identification, surface appearance, shape and dimensional properties	Kennzeichnung, Identifizierung, Oberfläche, Form und Maße	Marquage et identification, aspect de surface, forme et caractéristiques dimensionnelles
D 02 to D 50	Non-destructive tests	Zerstörungsfreie Prüfungen	Essais non destructifs
D 51 to D 99	Other product tests	Andere Prüfungen am Erzeugnis	Autres essais sur le produit
Z 01	Statement of compliance	Konformitätserklärung	Déclaration de conformité
Z 02	Date of issue and validation	Datum der Ausstellung und Bestätigung	Date d'émission et validation
Z 03	Stamp of the inspection representative	Stempel des (der) Abnahmebeauftragten	Timbre du contrôleur
Z 04	CE marking	CE - Zeichen	Marquage CE
Z 05 to Z 99	Supplementary information	Ergänzende Angaben	Informations complémentaires

**This document is now
PUBLIC**

.....



BSI — British Standards Institution

BSI is the independent national body responsible for preparing British Standards. It presents the UK view on standards in Europe and at the international level. It is incorporated by Royal Charter.

Revisions

British Standards are updated by amendment or revision. Users of British Standards should make sure that they possess the latest amendments or editions.

It is the constant aim of BSI to improve the quality of our products and services. We would be grateful if anyone finding an inaccuracy or ambiguity while using this British Standard would inform the Secretary of the technical committee responsible, the identity of which can be found on the inside front cover. Tel: +44 (0)20 8996 9000. Fax: +44 (0)20 8996 7400.

BSI offers members an individual updating service called PLUS which ensures that subscribers automatically receive the latest editions of standards.

Buying standards

Orders for all BSI, international and foreign standards publications should be addressed to Customer Services. Tel: +44 (0)20 8996 9001. Fax: +44 (0)20 8996 7001. Email: orders@bsi-global.com. Standards are also available from the BSI website at <http://www.bsi-global.com>.

In response to orders for international standards, it is BSI policy to supply the BSI implementation of those that have been published as British Standards, unless otherwise requested.

Information on standards

BSI provides a wide range of information on national, European and international standards through its Library and its Technical Help to Exporters Service. Various BSI electronic information services are also available which give details on all its products and services. Contact the Information Centre. Tel: +44 (0)20 8996 7111. Fax: +44 (0)20 8996 7048. Email: info@bsi-global.com.

Subscribing members of BSI are kept up to date with standards developments and receive substantial discounts on the purchase price of standards. For details of these and other benefits contact Membership Administration. Tel: +44 (0)20 8996 7002. Fax: +44 (0)20 8996 7001. Email: membership@bsi-global.com.

Information regarding online access to British Standards via British Standards Online can be found at <http://www.bsi-global.com/bsonline>.

Further information about BSI is available on the BSI website at <http://www.bsi-global.com>.

Copyright

Copyright subsists in all BSI publications. BSI also holds the copyright, in the UK, of the publications of the international standardization bodies. Except as permitted under the Copyright, Designs and Patents Act 1988 no extract may be reproduced, stored in a retrieval system or transmitted in any form or by any means – electronic, photocopying, recording or otherwise – without prior written permission from BSI.

This does not preclude the free use, in the course of implementing the standard, of necessary details such as symbols, and size, type or grade designations. If these details are to be used for any other purpose than implementation then the prior written permission of BSI must be obtained.

Details and advice can be obtained from the Copyright & Licensing Manager. Tel: +44 (0)20 8996 7070. Fax: +44 (0)20 8996 7553. Email: copyright@bsi-global.com.

BSI
389 Chiswick High Road
London
W4 4AL