

INIONIONANDAND

I.S. EN 10219-1:2006

COLD FORMED WELDED STRUCTURAL
HOLLOW SECTIONS OF NON-ALLOY AND
FINE GRAIN STEELS - PART 1: TECHNICAL
DELIVERY CONDITIONS

National Standards Authority of Ireland Glasnevin, Dublin 9 Ireland

Tel: +353 1 807 3800 Fax: +353 1 807 3838 http://www.nsai.ie

#### Sales

http://www.standards.ie

This Irish Standard was published under the authority of the National Standards Authority of Ireland and comes into effect on: 7 July 2006

NO COPYING WITHOUT NSAI PERMISSION EXCEPT AS PERMITTED BY COPYRIGHT LAW

© NSAI 2006 Price Code L

Údarás um Chaighdeáin Náisiúnta na hÉireann

This is a free page sample. Access the full version online.

# EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN 10219-1

April 2006

ICS 77.140.75

Supersedes EN 10219-1:1997

## **English Version**

# Cold formed welded structural hollow sections of non-alloy and fine grain steels - Part 1: Technical delivery conditions

Profils creux pour la construction soudés, formés à froid en aciers non alliés et à grains fins - Partie 1 : Conditions techniques de livraison

Kaltgefertigte geschweißte Hohlprofile für den Stahlbau aus unlegierten Baustählen und aus Feinkornbaustählen - Teil 1: Technische Lieferbedingungen

This European Standard was approved by CEN on 16 March 2006.

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, Romania, 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

# EN 10219-1:2006 (E)

Contents				
Forewo	ord	3		
1	Scope	4		
2	Normative references	4		
3	Terms, definitions and symbols	5		
3.1	Terms and definitions	5		
3.2	Symbols			
4	Classification and designation			
4.1 4.2	Classification  Designation	_		
5	Information to be obtained by the manufacturer			
5.1	Mandatory information	7		
5.2 5.3	Options  Example of an order			
6	Requirements			
6.1	General			
6.2	Steel manufacturing process	8		
6.3 6.4	Condition of feedstock material			
6.5	Delivery condition	8		
6.6 6.7	Chemical composition			
6. <i>1</i>	Mechanical properties  Technological properties			
6.9	Surface condition	10		
6.10 6.11	Non-destructive testing of welds			
7	Inspection			
, 7.1	Types of inspection			
7.2	Types of inspection document	11		
7.3	Summary of inspection			
8 8.1	SamplingFrequency of tests			
8.2	Preparation of samples and test pieces			
9	Test methods	15		
9.1	Chemical analysis			
9.2 9.3	Mechanical tests  Visual inspection and dimensional check			
9.4	Non-destructive testing	16		
9.5	Retests, sorting and reprocessing			
10	Marking			
11	Evaluation of conformity			
Annex	A (normative) Structural hollow sections of non-alloy quality steels — Chemical compositio and mechanical properties			
Annex	B (normative) Structural hollow sections of fine grain steels — Chemical composition and mechanical properties	20		
Annex C (normative) Location of samples and test pieces				
Annex D (normative) Evaluation of conformity25				
Annex	ZA (informative) Clauses of this European Standard addressing the provisions of the EU Construction Products Directive	30		
Bibliog	ıraphy	35		

EN 10219-1:2006 (E)

# **Foreword**

This European Standard (EN 10219-1:2006) has been prepared by Technical Committee ECISS/TC 10 "Structural steels - Grades and qualities", the secretariat of which is held by NEN.

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 October 2006, and conflicting national standards shall be withdrawn at the latest by October 2006.

This European Standard supersedes EN 10219-1:1997.

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this European Standard.

This standard consists of the following parts under the general title 'Cold formed welded structural hollow sections of non-alloy and fine grain steels':

- Part 1: Technical delivery conditions
- Part 2: Tolerances, dimensions and sectional properties

It forms part of a series of standards on hollow sections together with EN 10210-1 and 2, which are also under revision.

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, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

# EN 10219-1:2006 (E)

## 1 Scope

This part of this European Standard specifies the technical delivery conditions for cold formed welded structural hollow sections of circular, square or rectangular forms and applies to structural hollow sections formed cold without subsequent heat treatment.

Requirements for tolerances, dimensions and sectional properties are contained in EN 10219-2.

NOTE A range of steel grades is specified in this European Standard and the user should select the grade appropriate to the intended use and service conditions. The grades and mechanical properties of the finished hollow sections are compatible with those in EN 10025-2 and EN 10025-3.

#### 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 287-1, Qualification test of welders - Fusion welding - Part 1: Steels

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 iron products

EN 10027-1, Designation systems for steels — Part 1: Steel names

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

EN 10045-1, Metallic materials — Charpy impact test — Part 1: Test method

EN 10052:1993, Vocabulary of heat treatment terms for ferrous products

EN 10168, Steel products - Inspection documents - List of information and description

EN 10204, Metallic products — Types of inspection documents

EN 10219-2:2006, Cold formed welded structural hollow sections of non-alloy and fine grain steels — Part 2: Tolerances, dimensions and sectional properties

EN 10246-3, Non-destructive testing of steel tubes — Part 3: Automatic eddy current testing of seamless and welded (except submerged arc welded) steel tubes for the detection of imperfections

EN 10246-5, Non-destructive testing of steel tubes — Part 5: Automatic full peripheral magnetic transducer/flux leakage testing of seamless and welded (except submerged arc welded) ferromagnetic steel tubes for the detection of longitudinal imperfections

EN 10246-8, Non-destructive testing of steel tubes — Part 8: Automatic ultrasonic testing of the weld seam of electric welded steel tubes for the detection of longitudinal imperfections

EN 10246-9, Non-destructive testing of steel tubes — Part 9: Automatic ultrasonic testing of the weld seam of submerged arc-welded steel tubes for the detection of longitudinal and/or transverse imperfections

EN 10246-10, Non-destructive testing of steel tubes — Part 10: Radiographic testing of the weld seam of automatic fusion arc welded steel tubes for the detection of imperfections

EN 10256, Non-destructive testing of steel tubes - Qualification and competence of level 1 and 2 non-destructive testing personnel



The is a new provider i arenade and chare publication at the limit below	This is a free preview.	Purchase the	entire publication	at the link below:
--	-------------------------	--------------	--------------------	--------------------

**Product Page** 

- Dooking for additional Standards? Visit Intertek Inform Infostore
- Dearn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation