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**IRISH STANDARD**

**I.S. EN 10298:2005**

ICS 23.040.10  
23.040.40  
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**STEEL TUBES AND FITTINGS FOR ON SHORE  
AND OFFSHORE PIPELINES - INTERNAL  
LINING WITH CEMENT MORTAR**

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English Version

## Steel tubes and fittings for on shore and offshore pipelines - Internal lining with cement mortar

Tubes en acier et raccords pour canalisations enterrées et immergées - Revêtement interne au moyen de mortier de ciment

Stahlrohre und Formstücke für erd- und wasserlegte Rohrleitungen Zementmörtel-Auskleidung

This European Standard was approved by CEN on 26 August 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 10298:2005) has been prepared by Technical Committee ECISS/TC 29 “Steel tubes and fittings for steel tubes”, the secretariat of which is held by UNI.

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of an identical text or by endorsement, at the latest by April 2006, and conflicting national standards shall be withdrawn at the latest by April 2006.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 10298:2005 (E)

### 1 Scope

This European Standard specifies requirements for cement mortar linings for protecting the internal surface of steel tubes and pipeline components. It also specifies requirements for their application. It is applicable to the linings of tubes that have been welded longitudinally or spirally, seamless tubes and non-alloy steel components used for fluid transportation. This European Standard does not cover in situ applied or rehabilitation linings.

This type of lining is used in particular in the transport and distribution, under pressure or by gravity, of water intended for human consumption and industrial use, and also in fire extinguishing and waste water systems. The temperature of the water transported should not exceed 50 °C. Higher working temperature can be used by agreement of the parties.

The constituent materials of cement mortar lining, when used under the conditions for which they are designed, in permanent or temporary contact with water intended for human consumption, shall not change the quality of that water to such an extent that it fails to comply with the requirements of European regulations. For this purpose, reference shall be made to the relevant national standards transposing EN standards when available, dealing with the influence of materials on water quality.

### 2 Normative references

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

EN 196-1, *Methods of testing cement — Part 1: Determination of strength*.

EN 197-1, *Cement — Part 1: Composition, specifications and conformity criteria for common cements*.

EN 1744-1, *Tests for chemical properties of aggregates — Part 1: Chemical analysis*.

ISO 565, *Test sieves — Metal wire cloth, perforated metal plate and electroformed sheet — Nominal sizes of openings*.

ISO 2591-1, *Test sieving — Part 1: Methods using test sieves of woven wire cloth and perforated metal plate*.

ISO 3310-1, *Test sieves — Technical requirements and testing — Part 1: Test sieves of metal wire cloth*.

### 3 Terms and definitions

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

#### 3.1

##### **product manufacturer**

manufacturer of lining material

#### 3.2

##### **coater**

organisation responsible for lining of tubes and components

#### 3.3

##### **purchaser**

buyer of the lined products

#### 3.4

##### **drinking water**

water intended for human consumption

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