



NSAI
Standards

Irish Standard
I.S. EN 13766:2010

Thermoplastic multi-layer (non-vulcanized) hoses and hose assemblies for the transfer of liquid petroleum gas and liquefied natural gas - Specification

I.S. EN 13766:2010

Incorporating amendments/corrigenda/National Annexes issued since publication:

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I.S. xxx: Irish Standard – national specification based on the consensus of an expert panel and subject to public consultation.

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SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

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<p>Údarás um Chaighdeáin Náisiúnta na hÉireann</p>					

English Version

Thermoplastic multi-layer (non-vulcanized) hoses and hose assemblies for the transfer of liquid petroleum gas and liquefied natural gas - Specification

Tuyaux et flexibles en thermoplastique multi couches (non vulcanisés) utilisés pour le dépotage de gaz pétrolier liquide et gaz naturel liquéfié - Spécification

Thermoplastische, mehrlagige (nicht vulkanisierte) Schläuche und Schlauchleitungen für die Förderung von Flüssiggas und verflüssigtem Erdgas - Spezifikation

This European Standard was approved by CEN on 5 May 2010.

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 CEN Management Centre 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 CEN Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, 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.



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Foreword

This document (EN 13766:2010) has been prepared by Technical Committee CEN/TC 218 "Rubber and plastics hoses and hose assemblies", 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 December 2010, and conflicting national standards shall be withdrawn at the latest by December 2010.

This document supersedes EN 13766:2003.

Compared to the 2003 version, changes have been made to the following (sub)clauses, tables and annexes:

- Scope: Reference to EN 1474-2 added;
- Table 1: Temperature has been changed to $-196\text{ }^{\circ}\text{C}$;
- 7.1: Reference to new test standards added;
- Table 3: Change in length test refined;
- Table 4: Electrical resistance test refined;
- 7.5: Electrical Continuity text added;
- 10.1: Hose marking simplified;
- Annex E: text revised to incorporate cyclic testing to low temperatures;
- Annex G: Tests moved from hose to hose assemblies;
- Annex H: Tests moved from hose to hose assemblies.

This document has also been presented to ISO/TC 45/SC 1, for adoption as an ISO standard under the Vienna agreement.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, 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.

1 Scope

This European Standard specifies requirements for two types of thermoplastic multi-layer (non-vulcanized) transfer hoses and hose assemblies for carrying liquefied petroleum gas and liquefied natural gas. Each type is subdivided into two classes, one for onshore duties, and the other for offshore.

This European Standard is applicable for hose sizes from 25 mm to 250 mm, working pressures from 10,5 bar to 25 bar and operating temperatures from – 196 °C to + 45 °C.

NOTE Offshore LNG hose assemblies are also specified in EN 1474-2.

WARNING — Persons using this European Standard should be familiar with normal laboratory practice.

This standard does not purport to address all the safety problems, if any, associated with its use. It is the responsibility of the user to establish appropriate health and safety practices and to ensure compliance with any national regulatory conditions.

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

EN 10088-3, *Stainless steels — Part 3: Technical delivery conditions for semi-finished products, bars, rods, wire, sections and bright products of corrosion resisting steels for general purposes*

EN ISO 527-1, *Plastics - Determination of tensile properties — Part 1: General principles (ISO 527-1:1993 including Corr 1:1994)*

EN ISO 1043-1, *Plastics — Symbols and abbreviated terms — Part 1: Basic polymers and their special characteristics (ISO 1043-1:2001)*

EN ISO 1402:2009, *Rubber and plastics hoses and hose assemblies — Hydrostatic testing (ISO 1402:2009)*

EN ISO 1746, *Rubber or plastics hoses and tubing — Bending tests (ISO 1746:1998, including technical corrigendum 1:1999)*

EN ISO 4671, *Rubber and plastics hose and hose assemblies — Methods of measurement of the dimensions of hoses and the lengths of hose assemblies (ISO 4671:2007)*

EN ISO 4672, *Rubber and plastics hoses — Sub-ambient temperature flexibility tests (ISO 4672:1997)*

EN ISO 7326, *Rubber and plastics hoses — Assessment of ozone resistance under static conditions (ISO 7326:2006)*

EN ISO 8031:2009, *Rubber and plastics hoses and hose assemblies — Determination of electrical resistance and conductivity (ISO 8031:2009)*

EN ISO 8330:2008, *Rubber and plastics hoses and hose assemblies — Vocabulary (ISO 8330:2007)*

EN ISO 13934-1, *Textiles — Tensile properties of fabrics — Part 1: Determination of maximum force and elongation at maximum force using the strip method (ISO 13934-1:1999)*

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