

Irish Standard I.S. EN 13575:2012

Static thermoplastic tanks for the above ground storage of chemicals â€" Blow moulded or rotationally moulded polyethylene tanks â€" Requirements and test methods

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<b>NSAI</b> 1 Swift Square, Northwood, Santry Dublin 9	T +353 1 807 3800 F +353 1 807 3838 E standards@nsai.ie	Sales: T +353 1 857 6730 F +353 1 857 6729 W standards.ie	

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## EUROPEAN STANDARD

EN 13575

# NORME EUROPÉENNE EUROPÄISCHE NORM

April 2012

ICS 23.020.10

Supersedes EN 13575:2004

### **English Version**

# Static thermoplastic tanks for the above ground storage of chemicals - Blow moulded or rotationally moulded polyethylene tanks - Requirements and test methods

Réservoirs statiques thermoplastiques destinés au stockage non enterré de produits chimiques - Réservoirs en polyéthylène moulés par soufflage ou par rotation - Exigences et méthodes d'essai

Ortsfeste Tanks aus Thermoplasten für die oberirdische Lagerung von Chemikalien - Tanks aus blas- oder rotationsgeformtem Polyethylen - Anforderungen und Prüfverfahren

This European Standard was approved by CEN on 25 February 2012.

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-CENELEC 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-CENELEC Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

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EN 13575:2012 (E)

## **Foreword**

This document (EN 13575:2012) has been prepared by Technical Committee CEN/TC 266 "Thermoplastic static tanks", the secretariat of which is held by DIN.

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 2012, and conflicting national standards shall be withdrawn at the latest by October 2012.

This document supersedes EN 13575:2004.

The main changes compared to the previous edition are:

- a) Clause 1, Scope: the field of application has been extended to tanks with a volume of 400 l to 10 000 l;
- b) Clause 2, Normative references has been updated;
- c) Clause 6, Evaluation of conformity has been revised and moved to Annex D in its entirety;
- d) B.3. Tensile properties has been revised;
- e) B.4, Chemical resistance has been revised with reference to EN ISO 23667;
- f) C.8: For the pressure resistance test a support framework for tanks > 3 500 l is permitted;
- g) Annex D has been deleted;
- h) Annex E has been deleted;
- i) The new Annex D "Evaluation of conformity" has been added;
- j) The new Annex E "A-deviations" has been added due to the national regulations of the Netherlands.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

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, Turkey and the United Kingdom.

## EN 13575:2012 (E)

## 1 Scope

This European Standard specifies requirements for materials, physical properties and performance for blow moulded and rotationally moulded polyethylene single tanks, with or without reinforcement, for the above ground storage of chemical liquids having a maximum specific gravity of 1 400 kg/m<sup>3</sup> except water and those liquids dealt with by EN 13341.

It is only applicable to static blow moulded or rotationally moulded polyethylene tanks, which are subjected to atmospheric pressures but not subject to any external loading and having a volume of 400 l to 10 000 l. Except for periodic temperature fluctuation their normal operating temperature does not exceed 25 °C.

Tanks according to this European Standard are expected to have a period of intended use of 10 years.

This European Standard specifies test methods and factory production control tests as well.

NOTE National and/or international regulations above and beyond the requirements of this standard may apply to the storage of liquids and the installation of tanks.

## 2 Normative references

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

EN 13616, Overfill protection devices for static tanks for liquid petroleum fuels

EN ISO 179-1, Plastics — Determination of Charpy impact properties — Part 1: Non-instrumented impact test (ISO 179-1:2000)

EN ISO 293:2005, Plastics — Compression moulding of test specimens of thermoplastic materials (ISO 293:2004)

EN ISO 527-2:1996, Plastics — Determination of tensile properties — Part 2: Test conditions for moulding and extrusion plastics (ISO 527-2:1993 including Corr 1:1994)

EN ISO 1133, Plastics — Determination of the melt mass-flow rate (MFR) and the melt volume-flow rate (MVR) of thermoplastics (ISO 1133:2005)

EN ISO 1183-1, Plastics — Methods for determining the density of non-cellular plastics — Part 1: Immersion method, liquid pyknometer method and titration method (ISO 1183-1:2004)

EN ISO 1183-2, Plastics — Methods for determining the density of non-cellular plastics — Part 2 Density gradient column method (ISO 1183-2:2004)

EN ISO 1872-2:2007, Plastics — Polyethylene (PE) moulding and extrusion materials — Part 2: Preparation of test specimens and determination of properties (ISO 1872-2:2007)

EN ISO 4892-1, Plastics — Methods of exposure to laboratory light sources — Part 1: General guidance (ISO 4892-1:1999)

EN ISO 4892-2, Plastics — Methods of exposure to laboratory light sources — Part 2: Xenon-arc lamps (ISO 4892-2:2006)

EN ISO 23667:2007, Packaging —Transport packaging for dangerous goods — Rigid plastics and plastics composite IBCs — Compatibility testing (ISO 23667:2007)



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