

Welded static non-pressurised thermoplastic tanks - Part 4: Design and calculation of flanged joints

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Part 4: Design and calculation of flanged joints

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 12573-4:2000 sisaldab Euroopa standardi EN 12573-4:2000 ingliskeelset teksti. Käesolev dokument on jõustatud 12.09.2000 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 12573-4:2000 consists of the English text of the European standard EN 12573-4:2000. This document is endorsed on 12.09.2000 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.
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Käsitlusala: This part of European Standard specifies the design and calculation of circular flanged joints, fabricated in the following thermoplastics: Polyethylene (PE), Polypropylene (PP), Poly (vinyl chloride) (PVC), Poly (vinylidene fluoride) (PVDF)	Scope: This part of European Standard specifies the design and calculation of circular flanged joints, fabricated in the following thermoplastics: Polyethylene (PE), Polypropylene (PP), Poly (vinyl chloride) (PVC), Poly (vinylidene fluoride) (PVDF)
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Võtmesõnad:

English version

Welded static non-pressurized thermoplastic tanks

Part 4: Design and calculation of flanged joints

Cuves statiques soudées en matières
thermoplastiques sans pression –
Partie 4: Conception et calcul des
joints à brides

Geschweißte ortsfeste drucklose
Behälter (Tanks) aus Thermoplasten –
Teil 4: Konstruktion und Berechnung
von Flanschverbindungen

This European Standard was approved by CEN on 2000-02-14.

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 266 "Thermoplastic static tanks", 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 September 2000, and conflicting national standards shall be withdrawn at the latest by September 2000.

prEN 12573:1999 "Welded static non-pressurised thermoplastic tanks" consists of:

- Part 1: General principles
- Part 2: Calculation of vertical cylindrical tanks
- Part 3: Design and calculation of single skin rectangular tanks
- Part 4: Design and calculation of flanged joints

The normative annex A gives the values for the calculation of loose metal backing rings

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This part of this standard specifies the design and calculation of circular flanged joints, fabricated in the following thermoplastics:

Polyethylene (PE)
Polypropylene (PP)
Poly (vinyl chloride) (PVC)
Poly (vinylidene fluoride) (PVDF)

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.

prEN 12573-1:1999	Welded static non-pressurised thermoplastic tanks – Part 1: General principles
EN 1778	Characteristic values for welded thermoplastic constructions – Determination of allowable stresses and moduli for design of thermoplastic equipment

3 Symbols and abbreviations

For the purposes of this part of this Standard the following symbols and abbreviations apply:

A_1	is the reduction factor to take account of the effect of specific strength, see EN 1778
A_{2K}	is the reduction factor taking into account the effect of surrounding medium, see EN 1778
a	is the depth of the weld seam, in millimetre
b	is the effective double flange width, in millimetre
b_D	is the gasket width, in millimetre
C, C_1	are welding process constants
c	is the corrosion allowance, in millimetre
d_0	is the gasket mean diameter, in millimetre