Plastics - Poly(vinyl chloride) (PVC) based profiles - Determination of the strength of welded corners and T-joints

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NATIONAL FOREWORD

See Eesti standard EVS-EN 514:2018 sisaldab Euroopa standardi EN 514:2018 ingliskeelset teksti.	This Estonian standard EVS-EN 514:2018 consists of the English text of the European standard EN 514:2018.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 31.01.2018.	Date of Availability of the European standard is 31.01.2018.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

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Plastics - Poly(vinyl chloride) (PVC) based profiles - Determination of the strength of welded corners and T-joints

Plastiques - Profilés à base de poly(chlorure de vinyle) (PVC) - Détermination de la résistance des assemblages soudés en angle et en T

Kunststoffe - Profile auf Basis von Polyvinylchlorid (PVC) - Bestimmung der Festigkeit verschweißter Ecken und T-Verbindungen

This European Standard was approved by CEN on 6 December 2017.

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

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European foreword

This document (EN 514:2018) has been prepared by Technical Committee CEN/TC 249 “Plastics”, the secretariat of which is held by NBN.

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of an identical text or by endorsement, at the latest by July 2018, and conflicting national standards shall be withdrawn at the latest by July 2018.

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1 Scope

This European Standard specifies a tensile bending method and a compression bending method for determining the failure stress of welded corners and welded T-joints made from unplasticized poly(vinyl chloride) (PVC-U) profiles.

It is applicable to PVC based profiles used for the fabrication of windows and doors.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at http://www.electropedia.org/

— ISO Online browsing platform: available at http://www.iso.org/obp

3.1
failure load
load at which yield occurs, or, if yield does not occur, load at which the test specimen breaks

4 Principle

Welded corners and T-joints made from unplasticized poly(vinyl chloride) (PVC-U) profiles are subjected to a tensile bending or compression bending test at specified temperature and test speed.

The failure load is recorded and the failure stress is calculated.

5 Apparatus

5.1 Tensile or compression testing machine

Tensile or compression testing machines are used with the following specifications:

a) measuring range of load: 2 kN to 20 kN;

b) load indication with zero point setting and peak recording;

c) measurement accuracy: ± 3 %;

d) test speed: (50 ± 5) mm/min.

5.2 Test arrangements

5.2.1 Corner weld samples for tensile bending test (see Figure 1)