Unplasticized polyvinylchloride (PVC-U) profiles for the fabrication of windows and doors - Determination of the resistance to impact of main profiles by falling mass

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EESTI STANDARDIKESKUS

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 477:2003 sisaldab Euroopa standardi EN 477:1995 ingliskeelset teksti. Käesolev dokument on jõustatud 14.08.2003 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN 477:2003 consists of the English text of the European standard EN 477:1995. This document is endorsed on 14.08.2003 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: This European Standard specifies a method for the determination of the resistance to impact by a falling mass at -10 C° of unplasticized polyvinylchloride (PVC-U) main profiles for the fabrication of windows and doors for the assessment of the extrusion	**Scope:** This European Standard specifies a method for the determination of the resistance to impact by a falling mass at -10 C° of unplasticized polyvinylchloride (PVC-U) main profiles for the fabrication of windows and doors for the assessment of the extrusion

ICS 83.140, 91.060.50

Võtmesõnad: buildings, impact tests, non-metallic sections, shock resistance, unplasticized polyvinylchloride, windows

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Descriptors: PVC, profiles, windows, doors, testing, resistance to impact.

English version

Unplasticized polyvinylchloride (PVC-U) profiles for the fabrication of windows and doors

Determination of the resistance to impact of main profiles by falling mass

Profilés de polychlorure de vinyle non plastifié (PVC-U) pour la fabrication des fenêtres et des portes; détermination de la résistance aux chocs par masse tombante des profilés principaux

Profile aus weichmacherfreiem Polyvinylchlorid (PVC-U) zur Herstellung von Fenstern und Türen; Bestimmung der Stoßfestigkeit von Hauptprofilen mittels Fallbolzen

This European Standard was approved by CEN on 1995-05-02.

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, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CEN

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

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

Foreword

This European Standard has been prepared by the Technical Committee CEN/TC 33 "Windows, doors, shutters, building hardware and curtain walling" of which the secretariat is held by AFNOR.

The requirements are incorporated in the product standards concerned.

This European Standard will result in one of a series of standards on test methods which supports a product standard for PVC-U profiles for the fabrication of windows and doors.

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 November 1995, and conflicting national standards shall be withdrawn at the latest by November 1995.

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

1 Scope

This European Standard specifies a method for the determination of the resistance to impact by a falling mass at - 10 °C of unplasticized polyvinylchloride (PVC-U) main profiles for the fabrication of windows and doors for the assessment of the extrusion.

2 Principle

Test pieces cut from lengths of main profiles are subjected to a blow from a mass falling from a known height on the sight surface at a point mid-way between two supporting webs at a fixed temperature.

After testing the profiles are examined visually for failures.

3 Definitions

For the purpose of this European Standard the following definitions apply :

3.1 main profile

A profile, which has a load bearing function in the construction of windows and doors.

3.2 sight surface

A face surface of a profile that is exposed to view, when the window or door is closed.

3.3 web

A membrane connecting two walls of a profile.

4 Apparatus

An impact testing machine incorporating the following basic components (see figure 1) shall be used :

a) **main frame**, rigidly fixed in the vertical position ;

b) **guide rails**, fixed to the main frame to accommodate the falling mass and allowing it to fall freely in the vertical plane ;

c) **test piece support**, consisting of a rounded off support (see figure 2) with a distance between (200 ± 1) mm. The support shall be made from steel and rigidly fixed in a solid foundation or on a table with a mass of more than 50 kg ;

d) **release mechanism**, such that the falling mass can fall through a height which can be adjusted up to $(1\,500\ ^{+10}_{0})$ mm, measured from the top surface of the test piece to be