



**NSAI**  
Standards

Irish Standard  
I.S. EN 107:1980

# Methods of testing windows - Mechanical test

## I.S. EN 107:1980

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

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

METHODS OF TESTING WINDOWS

MECHANICAL TESTS

Méthodes d'essais des fenêtres  
Essais mécaniques

Prüfverfahren für Fenster  
Mechanische Prüfungen

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

Central Secretariat: rue Bréderode 2 , B-1000 Bruxelles

## B R I E F H I S T O R Y

This European Standard was drawn up by the Technical Committee CEN/TC 33 "Technological tests for doors, windows, shutters and building hardware".

The Secretariat of which is held by AFNOR.

This European Standard was adopted by CEN on the strength of its acceptance by the following Member countries :  
Austria - Belgium - France - Germany - Greece - Italy - Netherland - Spain -

**I.S. EN 170:1980**1. INTRODUCTION

Windows, apart from the characteristics they have when closed, undergo various "stresses" while being opened and closed or cleaned.

Mechanical tests performed on the complete window make it possible to :

- determine the forces necessary to open and close the window
- examine the reaction of the window to mechanical tests simulating misuse
- examine the efficiency of the restricted or located opening devices, if fitted.

2. SCOPE

This standard defines the methods to be used for the tests of mechanical strength of windows considered as finished products, in their normal conditions of use.

3. FIELD OF APPLICATION

This standard applies to all windows including door height windows made of any material, in the actual operating conditions in which they should be used in a finished building, bearing in mind the conditions of test set out below.

4. TERMS AND DEFINITIONS

Hinge : rotating device allowing the opening of the window by rotation around an axis parallel to an edge of the window leaf.

Pivot : rotating device allowing the opening of the window by rotation around an axis not parallel to a side of the window leaf.

Restricted opening device : device for limiting the opening of the window.

Located opening device : device for keeping the window stable when opened.

5. TESTS

Distinction is made between :

## 5.1 Tests to be carried out on all types of windows :

- measuring the forces necessary to fasten and unfasten and to move and displace the window leaf (clause 8.1).

## 5.2 Tests varying according to the way in which the window opens :

- misuse (clause 8.2)
- tests of located opening devices of windows in an open position or of restricted opening positions (clause 8.3)

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