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English Version

**Hygrothermal performance of buildings - Resistance to wind -
driven rain of roof coverings with discontinuously laid small
elements - Test methods**

Performance hygrothermique des bâtiments - Résistance à
la pluie battante de couvertures en petits éléments posés
en discontinu - Méthodes d'essai

Wärme- und feuchteschutztechnisches Verhalten von
Gebäuden - Widerstand von Dacheindeckungen aus
kleinformatigen, überlappend gedeckten Dachelementen
gegen Schlagregen - Prüfverfahren

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Foreword

This document (CEN/TR 15601:2012) has been prepared by Technical Committee CEN/TC 89 "Thermal performance of buildings and building components", the secretariat of which is held by SIS.

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Introduction

The extent to which roof coverings can resist water penetration from the combination of wind and rain, commonly referred to as wind driven rain, is important for the design of roofs. This CEN Technical Report describes a method of test to determine the performance of the roof covering against wind driven rain.

The combined action of wind and rain varies considerably with geographical location of a building and the associated differences in the rain and wind climate. Wind-rain climate zones are specified for: Northern Europe Coastal, Central Europe and Southern Europe. Each climate zone is divided into four wind-rain sub-tests (including a deluge condition).

This Technical Report does not contain information on the level of acceptable performance. The use of test results is given in Annex C.

In case of reference should be made to testing according to this document the word "shall" is used at the appropriate places.

1 Scope

This Technical Report describes a method of test for determining the resistance of pitched roof coverings to wind-driven and deluge rain.

The test method is applicable to discontinuously laid unsealed small roof covering elements such as clay tiles, concrete tiles, slates, fibre cement slates and stones.

NOTE The test method may be adapted for fittings.

2 Normative References

This document contains no normative references.

3 Terms and definitions

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

3.1

test specimen

assembled array of elements for testing over which water leakage is to be observed or measured, excluding perimeter elements with sealed joints

3.2

set of tests

consisting of sub-tests B and D, (and optionally subtests A and C), for an appropriate climate zone, roof pitch and laying specification

Note 1 to entry: The sub-tests A, B, C and D are defined in Clause 8.

3.3

reference leakage rate

leakage rate of $10 \text{ g/m}^2/5 \text{ min}$, 5-minutes being the duration of a single test step in the sub-test