National Standards Authority of Ireland

IRISH STANDARD

I.S. CR 833 : 1993

ICS 91.060.20

National Standards
Authority of Ireland
Glasnevin, Dublin 9
Ireland
Tel: +353 1 807 3800
Fax: +353 1 807 3838
http://www.nsai.ie

Sales
http://www.standards.ie

GENERAL REQUIREMENTS FOR A DISCONTINUOUSLY LAID ROOF COVERING

This Irish Standard was published under the authority of the National Standards Authority of Ireland and comes into effect on:
23 April 1993

Price Code F

Údarás um Chaighdeáin Náisiúnta na hÉireann

R E P O R T

R A P P O R T

B E R I C H T

C R 8 3 3

July 1992

English version

General requirements for a discontinuously laid roof covering

Exigences générales pour une couverture de toit à pose discontinue

Generelle Anforderungen an eine Dacheindeckung

This CEN REPORT has been established by Technical Committee CEN/TC 128 "Roof covering products for discontinuous laying" and has been approved by the Technical Board by Resolution C9/1992 in accordance with CEN Internal Regulations, clause 4.3.10.

CEN Members are the national standards bodies of:
Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Iceland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom.

C E N

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

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

Ref n° CR 833:1992

GENERAL REQUIREMENTS FOR A DISCONTINUOUSLY LAID ROOF COVERING

1. Introduction

This document was drawn up as a foundation for the work of CEN TC 128. It is the basis for further standards which deal with individual products, methods of test and application.

2. Scope

This document establishes general requirements for a discontinuously laid roof covering. It covers design, products and application.

This document does not cover:

- flat roof weatherproofings
- under-roof systems
- thermal or sound insulation.

3. Definitions

3.1 Pitched Roof Covering

The pitched roof covering is an upper layer to a building and has a multiplicity of functions to fulfil. The discontinuously laid pitched roof covering consists of elements laid so that they overlap, e.g. in the form of roof tiles or thin sheet. Abutments, borders, roof penetrations and joints also come under pitched roof coverings.

Note: In contrast to discontinuously laid pitched roof coverings, flat roof weatherproof coverings are flat elements which form an impermeable layer over the whole surface.

3.2 Roof Pitch

The roof pitch is the slope of the roof surface (not that of the covering elements) compared to the horizontal. The Measurement of the roof pitch is expressed as the angle between the roof surface and the horizontal, in percent.

../..

3.3 Support for Pitched Roof Covering

The support for the pitched roof covering is the element on which the roof covering is directly laid, e.g. boarding, battening or purlins.

Note: Apart from the support which is always necessary for the pitched roof covering, an under-roof system is an additional measure which may improve or ensure the fulfilment of certain requirements.

3.4 Penetration of a Pitched Roof Covering

A penetration is an element which pierces the roof covering and projects through it. Penetrations may for example be:

- roof windows
- roof access openings
- chimneys
- roof elements such as snow guard supports, roof safety hooks, access plank supports
- roof accessories, e.g. aerials.

3.5 Abutments on Pitched Roof Coverings

On pitched roof coverings an abutment is the joint between a pitched roof covering and the elements that either rise above or penetrate it. Abutments are necessary at walls, roof superstructures, such as gables and chimneys.

3.6 Borders of Pitched Roof Coverings

On pitched roof coverings, a border is the formation of the roof covering at the edge of the roof. The following borders may be discerned:

- eaves
- ridge
- verge
- hip
- valley.

4. Requirements

4.1 Weather Resistance

4.1.1 Rain resistance.

Pitched roof coverings must be rainproof.

This means that the roof must prevent the ingress of rain, snow and hail. Rain-tight roof coverings

../..

may not be watertight against exceptional severe rain, snow and hail, with or without the influence of wind.

The rain resistance requirement is met by the performance standard of the pitched roofing product and the method of application.

To reduce or impede the entry of water into the interior an under-roof may be necessary.

The pitched roofing products, roof design and construction methods must ensure the correct functioning of the completed roof and allow for the movement of the support.

The watertightness of the pitched roof covering is achieved by means of vertical and horizontal overlapping, with or without interlocking at the joints of the slabs or sheets, by means of the pitch of the roof surface or, for certain products, by sealing the joints.

Minimum roof pitches are laid down in regional, national or international codes of practice for various types of products, compliance with which ensures the watertightness of the pitched roof covering in practice.

More far-reaching requirements, e.g. protections against wind-driven rain penetration, necessitate particular measures which should be taken into account at the design stage.

In high winds or storms allied with precipitation, or in frost and consequent icing over, the free drainage of water can be impeded with the result that transient precipitation water may succeed in entering under the roof covering. This can be influenced by the design of the overlapping and covering. Such water penetration through the joints between the roofing materials can be reduced or impeded by using an under-roof system.

4.1.2 Protection Against Wind-driven Snow, Sand and Dust

The entry of wind-driven snow, sand and dust cannot be excluded due to the method of laying the pitched roof covering and the resulting joints between the individual elements. If this must be reduced or impeded, a special requirement must be specified such as particular under-roof systems.

../..