



NSAI
Standards

Irish Standard Recommendation
S.R. CEN/TS 16459:2013

External fire exposure of roofs and roof coverings - Extended application of test results from CEN/TS 1187

S.R. CEN/TS 16459:2013

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**External fire exposure of roofs and roof coverings - Extended
application of test results from CEN/TS 1187**

Exposition des toitures et des couvertures à un feu
extérieur - Application étendue des résultats d'essai de la
CEN/TS 1187

Beanspruchung von Bedachungen durch Feuer von außen
- Erweiterter Anwendungsbereich der Prüfergebnisse aus
CEN/TS 1187

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Foreword

This document (CEN/TS 16459:2013) has been prepared by Technical Committee CEN/TC 127 "Fire safety in buildings", the secretariat of which is held by BSI.

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Introduction

Fire tests on individual roofs/roof coverings are carried out in accordance with CEN/TS 1187. The results from these tests can then be classified in accordance with EN 13501-5.

In order to derive classifications for similar roofs/roof coverings based on the data determined from CEN/TS 1187, additional rules are needed.

These rules are direct application rules or extended application rules. Rules within the direct field of application of test results are given in EN 13501-5 (these rules correspond to CEN/TS 1187).

This document outlines a procedure to develop rules for extended application and lists application rules which have already been developed in Annexes A to D for test methods 1 to 4 from CEN/TS 1187, where Annex A is related to test method 1, Annex B relates to test method 2, and so forth.

Annexes A to D have been developed based upon the available information and the roof systems in the market. The objective of this document is to provide a methodology for optimising the number of tests required to cover the maximum field of application.

Whilst special attention has been focused on roofs typically comprising a support deck/substrate, vapour barrier, insulation layer(s), membranes/roof coverings, there will be occasions when other separating layers or intermediate layers will be needed to satisfy other roof characteristics. These layers should be included in the consideration of the roof/the roof covering being classified.

NOTE Tests 1, 3 and 4 are carried out on a roof construction, whereas test 2 is done on a roof covering with its substrate below.

The decision route from the diagram below shows ways to determine which procedure to follow.

The solid line is compulsory, whereas the dotted line is optional.

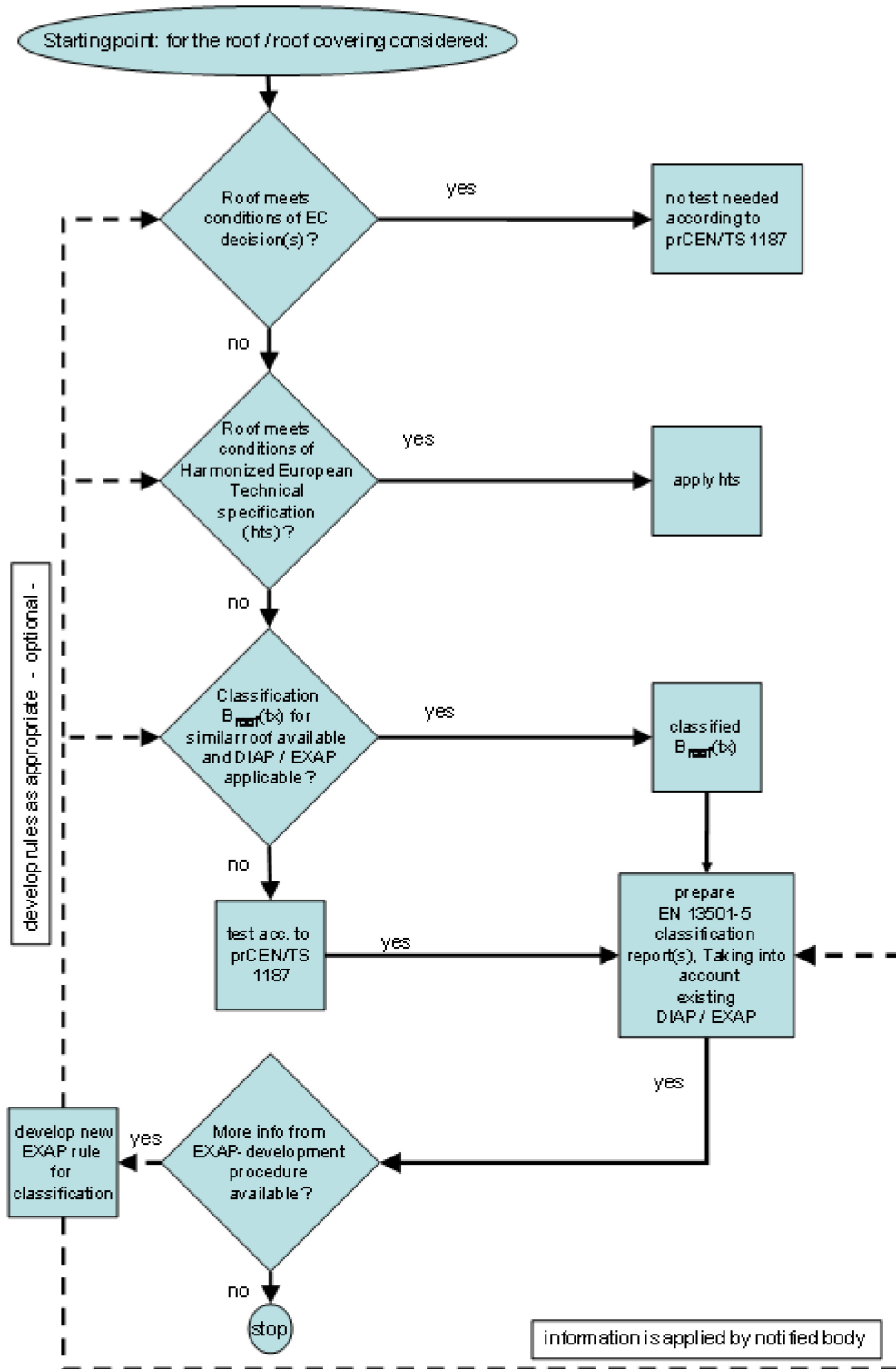


Figure 1 – Decision process on classification of roofs/roof coverings

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1 Scope

This Technical Specification gives guidance on the process and development of extended fields of application using test results obtained from CEN/TS 1187 test 1 to 4, and included in test reports, and other relevant information in order to evaluate and classify the performance of roofs/roof coverings. This Technical Specification provides a methodology to consider the possible effect(s) on classification to EN 13501-5 from single or multiple changes to the individual product and end-use application parameters of the roof/roof covering.

Specific application guidance is given in Annexe A, Annex B, Annex C and Annex D for CEN/TS 1187 tests 1 to 4 respectively.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

CEN/TS 1187:2012, *Test methods for external fire exposure to roofs*

EN 490, *Concrete roofing tiles and fittings for roof covering and wall cladding - Product specifications*

EN 492, *Fibre-cement slates and fittings - Product specification and test methods*

EN 494, *Fibre-cement profiled sheets and fittings - Product specification and test methods*

EN 506, *Roofing products of metal sheet - Specification for self-supporting products of copper or zinc sheet*

EN 508-1, *Roofing products from metal sheet - Specification for self-supporting products of steel, aluminium or stainless steel sheet - Part 1: Steel*

EN 508-2, *Roofing products from metal sheet - Specification for self-supporting products of steel, aluminium or stainless steel sheet - Part 2: Aluminium*

EN 508-3, *Roofing products from metal sheet - Specification for self-supporting products of steel, aluminium or stainless steel sheet - Part 3: Stainless steel*

EN 534, *Corrugated bitumen sheets - Product specification and test methods*

EN 544, *Bitumen shingles with mineral and/or synthetic reinforcements - Product specification and test methods*

EN 1013 (all parts), *Light transmitting profiled plastic sheeting for single skin roofing*

EN 1304, *Clay roofing tiles and fittings - Product definitions and specifications*

EN 1849-2, *Flexible sheets for waterproofing - Determination of thickness and mass per unit area - Part 2: Plastic and rubber sheets*

EN 1873, *Prefabricated accessories for roofing - Individual roof lights of plastics - Product specification and test methods*

EN 12326-1, *Slate and stone products for discontinuous roofing and cladding - Part 1: Product specification*

EN 13162, *Thermal insulation products for buildings - Factory made mineral wool (MW) products - Specification*

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