Literaturhinweise

EN 1154, *Schlösser und Baubeschläge —Türschließmittel mit kontrolliertem Schließablauf — Anforderungen und Prüfverfahren*

EN 1935, *Baubeschläge — Einachsige Tür- und Fensterbänder — Anforderungen und Prüfverfahren*

EN 15269-20, *Erweiterter Anwendungsbereich von Prüfergebnissen zur Feuerwiderstandsfähigkeit und/oder Rauchdichtigkeit von Türen, Toren und Fenstern einschließlich ihrer Baubeschläge — Teil 20: Rauchdichtigkeit von Türen, Toren, Abschlüssen, Gewebevorhängen und zu öffnenden Fenstern*

– Entwurf –

EUROPEAN STANDARD

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English Version

Extended application of test results on durability of self-closing for fire resistance and/or smoke control doorsets and openable windows - Part 3: Durability of self-closing of steel sliding doorsets

Erweiterter Anwendungsbereich von Prüfergebnissen zur Dauerhaftigkeit der Selbstschließung für Feuerschutz- und/oder Rauchschutztüren und zu öffnende Fenster - Teil 3: Dauerhaftigkeit der Selbstschließung von Schiebetoren aus Stahl

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (prEN 17020-3:2021) has been prepared by Technical Committee CEN/TC 127 “Fire safety in buildings”, the secretariat of which is held by BSI.

This document is currently submitted to the CEN Enquiry.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

A list of all parts in the EN 17020 series can be found on the CEN website.

Introduction

The EN 15269 series of standards covering extended application of test results for fire resistance and/or smoke control for door, shutter and openable window assemblies, including their elements of building hardware, does not include the durability of self-closing of the doorsets following an extended application process. This document is one of the EN 17020 series of standards intended to be used for the purpose of producing an extended application report based on the evaluation of one or more durability of self-closing tests. These European Standards may also be used to identify the best selection of test specimens required to cover a wide range of product variations.

Before there can be any consideration for extended application, the doorset should have been tested in accordance with EN 12605:2017+A1:2020 or EN 1191 to achieve a test result which could generate a classification in accordance with EN 13501-2 and EN 16034 at least equal to the classification subsequently required from extended application considerations.

1 Scope

This document is applicable to the following types of steel based doorsets: horizontally sliding doorsets (single and double), telescopic doorsets (single and double) and single vertically sliding doorsets as covered by EN 15269-7 or EN 15269-20.

This document prescribes the methodology for extending the application of test results obtained from durability of self-closing test(s) conducted in accordance with EN 12605:2017+A1:2020 or EN 1191.

Subject to the completion of the appropriate self-closing test(s), the extended application can cover all or some of the following non-exhaustive list:

— door leaf;

— pass doors;

— wall/ceiling fixed elements (frame/suspension system);

— ventilation grilles and/or louvres;

— glazing for door leaf;

— items of building hardware;

— decorative finishes;

— intumescent, smoke, draught or acoustic seals;

— alternative supporting construction(s).

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.

EN 1191, *Windows and doors - Resistance to repeated opening and closing - Test method*

EN 1363-1, *Fire resistance tests - Part 1: General requirements*

EN 1363-2, *Fire resistance tests - Part 2: Alternative and additional procedures*

EN 1634-1, *Fire resistance and smoke control tests for door and shutter assemblies, openable windows and elements of building hardware - Part 1: Fire resistance test for door and shutter assemblies and openable windows*

EN 1634-3, *Fire resistance and smoke control tests for door and shutter assemblies, openable windows and elements of building hardware - Part 3: Smoke control test for door and shutter assemblies*

EN 12209, *Building hardware - Mechanically operated locks and locking plates - Requirements and test methods*

EN 12433-1, *Industrial, commercial and garage doors and gates - Terminology - Part 1: Types of doors*

EN 12433-2, *Industrial, commercial and garage doors and gates - Terminology - Part 2: Parts of doors*

EN 12605:2017+A1:2020, *Industrial, commercial and garage doors and gates - Mechanical aspects - Test methods*

EN 13501-2, *Fire classification of construction products and building elements - Part 2: Classification using data from fire resistance tests, excluding ventilation services*

EN 14846, *Building hardware - Locks and latches - Electromechanically operated locks and striking plates - Requirements and test methods*

EN 15269-1, *Extended application of test results for fire resistance and/or smoke control for door, shutter and openable window assemblies, including their elements of building hardware - Part 1: General requirements*

EN 15269-7, *Extended application of test results for fire resistance and/or smoke control for door, shutter and openable window assemblies, including their elements of building hardware - Part 7: Fire resistance for steel sliding doorsets*

EN 15685:2015, *Building hardware – Multipoint locks, latches and locking plates - Requirements and test methods*

EN ISO 13943, *Fire safety - Vocabulary (ISO 13943)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 1191, EN 1363-1, EN 1363-2, EN 1634-1, EN 1634-3, EN 15269-1, EN 15269-7, EN 12433-1, EN 12433-2 and EN ISO 13943 and the following apply.

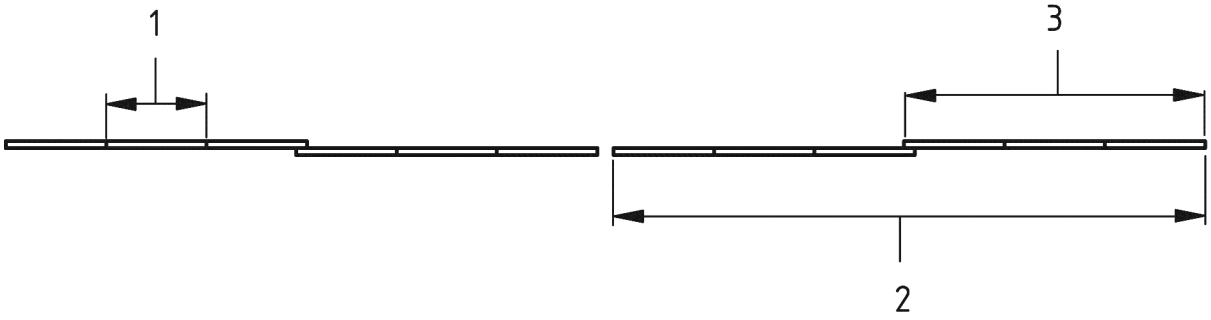
ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp/ui

— IEC Electropedia: available at http://www.electropedia.org/

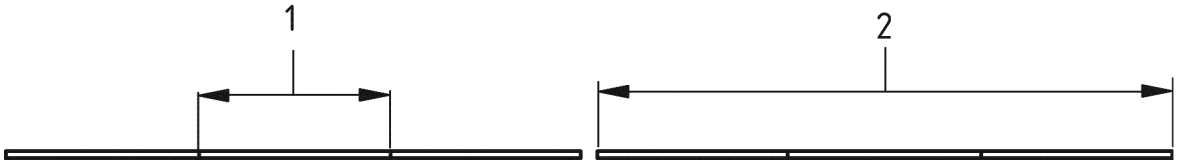
3.1
full scale test
test of a full size doorset in accordance with EN 12605:2017+A1:2020 or EN 1191

3.2
panel
part of a leaf or element of a doorset indicated as 1 in Figures 1 and 2



Key
1 panel
2 leaf
3 element

Figure 1 — Double leaf telescopic door



Key
1 panel
2 leaf

Figure 2 — Double leaf sliding door

3.3
leaf
part of a doorset indicated as 2 in Figures 1 and 2

3.4
element
part of a leaf indicated as 3 in Figure 1

4 Determination of the field of extended application

4.1 General

4.1.1 Before there can be any consideration for extended application, the doorset shall have been tested in accordance with EN 12605:2017+A1:2020 or EN 1191 to achieve a test result which could generate a classification in accordance with EN 13501-2 and/or correspond to a use category according to EN 16034.

4.1.2 A review of the doorset construction parameters can indicate, that one or more characteristics can be improved by a particular parameter variation. All evaluations shall be made on the basis of retaining the classifications obtainable from testing to EN 12605:2017+A1:2020 and/or EN 1191, including those with a lower number of opening and closing cycles. However, this shall never lead to an increased classification for any specific parameter beyond that achieved during any one test unless specifically identified in the relevant Construction Parameter Variation tables.

4.1.3 If, when following the extended application procedure, any part of the classified product cannot be achieved by extended application rules, that part shall be omitted from the subsequent extended application report and classification report.

4.2 Procedure for evaluation

4.2.1 Identify the variations from the original test specimen(s) which are required to be covered by an extended application report.

4.2.2 Locate the variations in the appropriate parameter variation by reference to columns (1) and (2) of Annex A, Table A.1.

4.2.3 Establish from the contents of column (3) of Annex A, Table A.1 whether any extended application is available without the need for further testing.

4.2.4 Where this is deemed to be possible, this can be recorded in the extended application report together with any appropriate restrictions and the stated rules from column (3) in Annex A, Table A.1.

4.2.5 Where the variations required can only be achieved from additional testing according to column (4), the additional test can be made on a similar specimen type to the original test against which the extended application is sought. Alternatively, column (4) in Table A.1 identifies an option for alternative testing and relevant test parameters.

4.3 Procedure for maximum field of extended application

4.3.1 It is possible to provide a limited field of extended application from the results of a single test. However, where a manufacturer intends to produce a range of sliding doors incorporating single leaf door assemblies and also double leaf door assemblies, with or without pass doors, with or without glazing, with alternative items of building hardware, etc., it is recommended that careful consideration is given to the complete range of doorset designs and options in order to minimize the testing required before testing commences.

4.3.2 Establish all the parameter variations, which are required to be part of the product range.

4.3.3 Determine which are the most important specification requirements and incorporate as many as possible into the specimen(s) for the first tests in the series.

4.3.4 Conduct the first durability test or a series of tests and then establish, which of the original desired parameter variations have not been covered by this test(s).

4.3.5 Identify these parameter variations in Annex A, Table A.1 and establish if any extended application is possible without further testing.

4.3.6 Record this for the extended application report together with any restrictions and rules given in column (3) in Annex A, Table A.1.

4.3.7 Evaluate which, if any, of the desired parameter variations have not been covered by the initial field of extended application derived from 4.3.6 above.

4.3.8 Determine if the product range is to include only single leaf doorsets or if the range is to also include double leaf configurations. Where only single doorsets are to be part of the product range, the outstanding construction parameter variations shall only be incorporated into specimens for the single leaf doorsets. Where single leaf and double leaf doorsets are to be included in the product range, the outstanding construction parameter variations for the extended application of single leaf doorsets may

be incorporated into either repeated single leaf doorset tests or, in the weakest option, as defined in column (4) of the table in Annex A, Table A.1, double leaf doorset configurations.

4.3.9 Select the required outstanding parameter variations from column (1) and column (2) of Annex A, Table A.1 and observe from column (4) of Annex A, Table A.1 which are the most appropriate weakest specimen options for further testing.

4.3.10 If the complete selection of required parameter variations has not been covered by the tests completed in accordance with 4.3.8 and 4.3.9 above, then an appropriate test or tests may be carried out with the additional product variations incorporated.

4.4 Interpretation of test results

4.4.1 In order to maximize the field of extended application, it is important that the test reports shall record details of any failures occurred throughout the test duration.

4.4.2 Where a series of tests have been conducted, the field of extended application shall be based on the lowest performance achieved from the complete series of tests unless premature failure has been attributed to one or more specific construction parameter variations.

4.4.3 Where it has been possible, to identify specific parameter failures, the extended application for all other construction parameter variations can be based on the performance achieved after isolating the premature failure(s).

5 Extended application report

Prepare an extended application report in accordance with the requirements of EN 15269-1 based on the results of evaluations in accordance with the above.

6 Classification report

The classification report shall be determined from the results of the extended application report and shall be presented in accordance with EN 13501-2:2016, Annex A.