



Classification Report



Fire Resistance Laboratory

APPLICANT:



**CLASSIFICATION OF FIRE RESISTANCE ACCORDING TO
THE STANDARD EN 13501-2:2016**

Hinged timber doorset

➤ Reference:..... "FLAM 44"

**HEAD OFFICE &
LABORATORIES** Camino del Estrechillo, 8
E-28500 Arganda del Rey - Madrid (Spain)

**CENTRAL OFFICE &
LABORATORIES** C/ Río Estenilla, s/n - P.I. Sta. M^a de Benquerencia
E-45007 Toledo (Spain)

+34 902 112 942
+34 918 713 524
+34 901 706 587
licof@afiti.com
www.afiti.com

**CLASSIFICATION OF FIRE RESISTANCE ACCORDING TO
EN 13501-2:2016**

Applicant: **SEADec**
Ferbane Technology Park
Aghaboy
Ferbane, Co
Offaly R42 EF83 - Ireland

Issuing laboratory: **AFITI-LICOF**
.....
Notified Body nr.: 1168

Building element: **Hinged timber doorset**
.....
(©)Information provided by the applicant
Reference:..... © "FLAM 44"

Classification report No.: **10133/22-3**
.....
Date of issue: 4th April 2022

**Report Contents**

1.- Aim of the report	.....	Page	3
2.- Details of the classified element	.....	Page	3
3.- Test reports and results in support of this classification.	.....	Page	3
4.- Classification and field of direct application	.....	Page	5
5.- Limitations	.....	Page	7

The issuance of this report has been performed in compliance with the requirements of AFITI's quality system. For any comment or claim in relation with this work, you can address our quality department at calidad@afiti.com.

The information held in this classification report is of a confidential nature, meaning the laboratory shall not provide information in relation to this report to third parties, except with the authorisation of the applicant.

It is not allowed to reproduce partially this classification report without laboratory's written approval.



1.- AIM OF THE REPORT

This classification report defines the classification of the fire resistance assigned to the hinged timber doorset designated by the applicant as “FLAM 44” in accordance with the procedures given in the standard EN 13501-2:2016 “*Fire classification of construction products and building elements - Part 2: Classification using data from fire resistance tests, excluding ventilation services*”.

2.- DETAILS OF THE CLASSIFIED ELEMENT

2.1.- TYPE OF FUNCTION

The element “FLAM 44” is defined as “fire door”. Their function is to resist the fire with regard to the characteristics of the fire performance given in the clause 5 of the standard EN 13501-2:2016.

2.2.- DESCRIPTION

The specimen tested is completely described in the test report no. 10133/22 issued by AFITI-LICOF, the test report in which this classification report is based on. In general terms, the specimen described in this report consist on the following:

Doorset 10133B

- Description: hinged timber single leaf doorset
- Leaf dimensions: 2,040 (height) × 926 (width)
- Light dimensions: 2,041 (height) x 908 (width)
- Leaf thickness: 44 mm

3.- TEST REPORTS AND RESULTS IN SUPPORT OF THIS CLASSIFICATION

3.1.- TESTS PERFORMED

Reports			
Issuing laboratory	Applicant	Report	Test method
AFITI-LICOF Camino del Estrechillo, 8 28500 - Arganda del Rey (Madrid)	SEADec Ferbane Technology Park Aghaboy Ferbane, Co Offaly R42 EF83 - Ireland	No. 10133/22 Test date: 17 th -Feb-22	EN 1634-1:2014+A1:2018 EN 1363-1:2020
Notified Body nr.: 1168			

Exposure conditions

- Temperature curve / time: standard
- Direction of exposure: opening towards the inside of the furnace
- No. of exposed sides: one



Test results
Specimen No. 10133B
Reference: © "FLAM 44"

Integrity (E)		34 minutes
Cotton pad	.....	35 minutes ^(F)
Gap gauges Ø 6 mm	.....	35 minutes ^(F)
Gap gauges Ø 25 mm	.....	35 minutes ^(F)
Sustained flames > 10 s	.....	34 minutes
Thermal insulation (I₂)	.....	34 minutes ^(*)
Average temperature	.....	35 minutes ^(F)
Maximum temperature (leaf)	.....	35 minutes ^(F)
Maximum temperature (frame)	.....	35 minutes ^(F)

^(F) End of the evaluation without failure of this criterion.

^(*) Due to failure of integrity (paragraph 11.4.2 of the EN 1363-1:2020)

3.2.- EXTENDED FIELD OF APPLICATION OF RESULTS
EXAP reports

<u>Issuing laboratory</u>	<u>Applicant</u>	<u>Report</u>	<u>Standard</u>
AFITI-LICOF	SEADec	No. EXAP 10133/22	EN 15269-3:2012
Camino del Estrechillo, 8 28500 – ARGANDA DEL REY (Madrid)	Ferbane Technology Park Aghaboy Ferbane, Co Offaly R42 EF83 - Ireland	..... Issuing date: 4 th -Apr-22	
Notified body nr.: 1168			

Extended field of application of test results

The parameters for the variation applicable to the doorset subject to the extension are shown below:

Variation	Results	Conditions for variation
Increase of the gap between the leaf and the floor	Integrity (E) 34 min Thermal insulation (I ₂) 34 min	
Use of alternative overhead concealed door closer: - ASSA ABLOY UNION SC-CE3F	Integrity (E) 34 min Thermal insulation (I ₂) 34 min	The force of the door closer in accordance with EN 1154 must be consistent with the mass of the door where it is intended to be installed.
Removal of the threshold drop seal	Integrity (E) 34 min Thermal insulation (I ₂) 34 min	
Use of alternative intumescent seal fitted in the frame: - ASTROFLAME 15 x 4 mm	Integrity (E) 34 min Thermal insulation (I ₂) 34 min	The intumescent protection (material and thickness) of the alternative device is maintained as in the specimen tested.
Installation of a door viewer: - JNF IN.23.010	Integrity (E) 34 min Thermal insulation (I ₂) 34 min	



4.- CLASSIFICATION AND FIELD OF APPLICATION

4.1.- CLASSIFICATION STANDARD

This classification has been carried out in accordance with the paragraph 7 of the standard EN 13501-2:2016.

4.2.- CLASSIFICATION

The element "FLAM 44" is classified according to the following combination of performance parameters and classes.

Fire resistance classification

EI₂ 30

The following classifications are admitted:

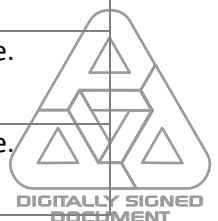
E	15	20	30
EI ₂	15	20	30
EW	-	20	30

4.3.- FIELD OF APPLICATION

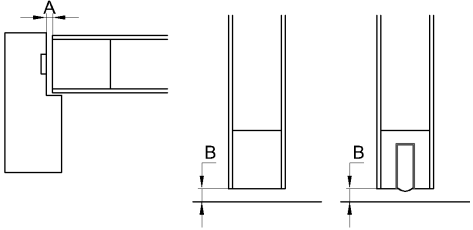
The field of direct application defines the allowable changes to the test specimen following a successful fire resistance test. When combining several parameters, the limitations imposed on each variation shall be taken into account individually, in order to verify that all the conditions corresponding to the variations in combination are met. The result of the application extension may result in changes in the classification obtained.

According to the standard EN 1634-1:2016+A1:2018 and the modifications evaluated in the extended application test report no. EXAP-10133/22, the element "FLAM 44", has the following field of application.

Parameter	Allowed variation
Dimensions	Category A Unlimited dimensional decrease is allowed. Dimensional increases are not allowed. 2,040 (height) x 926 (width) mm (leaf dimensions). - For smaller sizes of doors: The relative position of the elements (locks, hinges, etc.) that make possible the action of the set and that are present in the specimen tested will be kept; or there may be a modification of the distance between these elements by applying dimensional reduction in identical percentage to the specimen tested.
Facings	Increase in the thickness and density up to 25% of weight increase. - 3 mm fibreboard MDF type from SONAE $\geq 840 \text{ kg/m}^3$ density.
Core	Increase in the thickness and density up to 25% of weight increase. - 38 mm flaxboard SANOPAN $\geq 350 \text{ kg/m}^3$ density.
Internal framing	Increase in the thickness and density up to 25% of weight increase. - 38 x 45 mm pine wood $\geq 420\text{-}480 \text{ kg/m}^3$ density.



Parameter	Allowed variation
Decorative finishes	<p>Application of paint to the leaves and/or frames provided it does not contribute to the fire resistance is allowed.</p> <p>Decorative laminates and timber veneers up to 1.5 mm of thickness may be added to the sides of the leaves (never on the edges) and to the door frames.</p>
Frame	<p>Increase if the cross-sectional dimensions (including rebates) and density of the frame is allowed.</p> <ul style="list-style-type: none"> - Cross section: 108 x 44 x 32 mm. - Rebate: 12 mm. - Material: pine wood $\geq 420-480 \text{ kg/m}^3$ density.
Fixing of the frame	<p>Allowed increase of the number of fixations per unit of length used to attach the doorset to the supporting construction. The distance between them can be reduced.</p> <p>Fixation by means of $\varnothing 6$ x 100 mm screws and $\varnothing 8$ x 65 mm plugs.</p> <p>At least 4 pairs of screw + plug each jamb, ≤ 600 mm apart.</p> <p>At least 1 pair of screw + plug in the lintel.</p> <p>The gap between the frame and the supporting construction, about 5 mm each side, is to be sealed with fire rated PU foam Blue60.</p>
Intumescent strips in the frame	<p>It is allowed to install one of the following intumescent strips:</p> <ul style="list-style-type: none"> - EXITEX 15 x 4 mm. - ASTROFLAME 15 x 4 mm.
Hinges	<p>The hinges to be installed are:</p> <ul style="list-style-type: none"> • HERRAYMA HST 800 <ul style="list-style-type: none"> - Number of hinges: 3 or more. - Location of the upper hinge: at least 150 mm from the top of the hinge to the upper edge of the leaf. That distance could be reduced. - Location of the lower hinge: at least 240 mm from the bottom of the hinge to the bottom edge of the leaf. That distance could be reduced. - Distance between axis of the hinges: 774 mm. - Fixed by 4 screws to the leaf and 4 to the frame each hinge. - The hinges must be protected with NORSEAL intumescent hinge pad - Interdens® 1 mm thickness (Type 15).
Door closer	<p>The doorset could be installed with or without a door closer device. When installed, it is allowed to install one of the following overhead concealed door closers.</p> <ul style="list-style-type: none"> • RUTLAND Reference: ITS 11204 • ASSA ABLOY Reference: Union SC-CE3F <ul style="list-style-type: none"> - In both cases, the force of the door closer in accordance with EN 1154 must be consistent with the mass of the leaf. - The door closer must be protected as in the specimen tested: <ul style="list-style-type: none"> ○ Rutland IP. 114 - Standard Rail Intumescent Pack 2 mm thick placed on the frame and on the top of the door leaf above the case of the concealed door closer. Other references for the <u>same material and thickness</u> when the ASSA ABLOY door closer is used could be used. ○ Without intumescent protection fitted to the body of the door closer within the door.

Parameter	Allowed variation
Lock	The lock to be installed is: <ul style="list-style-type: none"> • ARNONE – AR912 - Deadbolt included in the lock with an height of 38 mm and a projection of 20 mm - The amount of material removed from the door leaf shall be as tested in the original doorset or less. - The lock must be protected with NORSEAL intumescent hinge pad - Interdens® 1 mm thickness (Type 15). - Escutcheon: ARNONE – AR961/67 - Cylinder: ASSA ABLOY CLIQ Remote Cylinder
Threshold drop seal	It is possible to install or not the following threshold drop seal: <ul style="list-style-type: none"> • NORSEAL NOR 810 - When installed, it is not necessary to protect the threshold drop seal with intumescent material.
Gaps	The maximum main gaps allowed are as follows: <ul style="list-style-type: none"> - Leaf/frame jambs (A): 5.7 mm - Leaf/frame lintel (A): 4.9 mm - Leaf/floor (B): 11.2 mm Gaps less than the maximum allowable. 
Supporting construction	Valid for: <ul style="list-style-type: none"> • Rigid standard supporting constructions with a density $\geq 900 \text{ kg/m}^3$ and with a thickness $\geq 110 \text{ mm}$. • Flexible standard supporting constructions with appropriate fixings for timber frame in flexible constructions.
Opening direction	Valid for both opening directions.

5.- LIMITATIONS

“This document does not represent type approval or certification of the product.”

Arganda del Rey, 4th April 2022



Digitally Signed Document

Signed: Sergio Nogueras Perona
Laboratory technician
Fire resistance laboratory



Digitally Signed Document

Signed: Carlos Burón Alonso
Technical director
Fire resistance laboratory

