



RESITANCE TO FIRE

Classification Report

REPORT NR: 245730ENG PROJECT Nr: PY18-0077 Ref Nr: MV69349

DATE OF ISSUE: 31/08/2018

ACCREDITED BODY Accredited Body to ENAC (National Accreditation) with the number 288/LE634

NOTIFIED BODY Notified Body nº 1668, Construction Products Regulation (UE) nº 305/2011

TEST SPECIMEN Type: DOORSET TIMBER SINGLE FOLDING LEAF

Reference: Doorset A: RF T-60 A

Total Dimension: 2110 x 930 x 55 mm

STANDARD UNE-EN 13501-2:2009 +A1:2010. Fire classification of construction products and building elements - Part 2: Classification using data from fire resistance tests, excluding ventilation services

APPLICANT NORMA DOORS TECHNOLOGIES, S.A.
PARAJE QUIÑONES S/N
42140 SAN LEONARDO DE YAGÜE SORIA

DATE/S OF TEST Test Start Date: 20/07/2018
End Start Date: 20/07/2018

CLASSIFICATION **EI₂60 / EI₁30 / EI₂30**

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Department Director

The result of this/these test/s only refers to the object/s tested. This document may not be partly reproduced without the express authorization of ENSATEC

This report is the translation of report nº. 245486



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1 SCOPE.

This classification report defines the classification in accordance with the procedures given in UNE-EN 13501-2:2009 + A1:2010 "Fire classification of construction products and building elements - part 2: classification using data from fire resistance tests, excluding ventilation services", clause 7.5.5. Classification of fire doors and shutters including their closing devices

Note: this classification report does not represent type approval or certification of the product

2 PRODCUT DESCRIPTION

The sample is defined as a fire resistant door according to the Standard UNE-EN 13501-2: 2009 + A1: 2010

The technical specifications and drawings of the test sample have been provided by the applicant and are included in the test report in support of this classification

The description of the sample is shown below

Element	
Description:	Single folding leaf
Manufacturer:	NORMA DOORS TECHNOLOGIES, S.A.
Reference:	RF T-60 A
Number of leaves:	1
Total dimension:	2130 x 959 mm
Light measurement:	2102 x 903 mm
Leaf thickness:	55 mm
Main material (leaf and frame):	Pine Wood – Chipboard - MDF
Reference certification body:	Doorset A: FM 396239-A 1121 (opening towards the furnace)



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

3.1 Test reports

Test Report Nr.:	Laboratory	Applicant	Date of test	Test Method
245729ENG	ENSATEC, S.L.U.	NORMA DOORS TECHNOLOGIES, S.A.	20/07/2018	EN 1634-1:2014

3.2 Test Result

DOORSET A	
INTEGRITY (E): 70 minutes	
Cotton pad:	70 minutes
Gap gauge Φ6 mm:	70 minutes (without failure, test stopped)
Gap gauge Φ25 mm:	70 minutes (without failure, test stopped)
Sustained flame:	70 minutes (without failure, test stopped)
THERMAL INSULATION (I₁): 54 minutes	
Mean temperature:	70 minutes (without failure, test stopped)
Maximum temperature:	54 minutes
THERMAL INSULATION (I₂): 70 minutes	
Mean temperature:	70 minutes (without failure, test stopped)
Maximum temperature:	70 minutes (without failure, test stopped)
TEST EXTENSION: 70 minutes	
MAXIMUM DEFLECTION: 17 mm	
CONCLUSIONS:	
The test is stopped in the minute 70 by failure of the cotton pad in the upper corner of the strike side. At minute 54, insulation failure I ₁ occurs by maximum temperature of the additional thermocouple 13.	



3.3 Exposure conditions

Direction of fire exposure:	Opening towards the furnace
Number of fire exposed sides:	2
Sample selection:	The sample was selected by Warrington in the sampling made on 17/07/2018 at the facilities of NORMA DOORS TECHNOLOGIES, S.A. and sent to the laboratory by the applicant. Reference certification body: FM 396239-A 1121
Supporting construction	Double recess with mortar plaster on both sides, total thickness 100 mm 745 kg/m ³

4 CLASSIFICATION

This classification has been carried out in accordance with clause 7.5, UNE-EN 13501-2:2009 +A1:2010.

The above-mentioned element, DOORSET TIMBER SINGLE FOLDING LEAF, opening towards the furnace, with reference **RFT-60 A**, is classified according to the following combinations of performance parameters and classes:

CLASSIFICATION	EI₂60 / EI₁30 / EI₂30
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5 FIELD OF DIRECT APPLICATION OF TEST RESULTS

The field of direct application defines the allowable changes to the test specimen following a successful fire resistance test. These variations can be applied automatically without the need for the sponsor to seek additional evaluation, calculation or approval.

Parameter	Variation allowed	Reference value (sample tested)
<i>Thickness of the door leaf. Density</i>	<p>The door panel thickness and/or density may be increased provided the total increase in weight is not greater than 25 %.</p> <p>The door thickness and/or density of the elements can not be reduced</p> <p>The composition of the particleboards (for example, amount of resin) can not be changed.</p>	<p>Leaf thickness: 55 mm</p> <p>Supporting frame: Perimetral, formed by 2 stiles and 2 rails of pine wood (approximate density 494 kg/m³ with a moisture content between 7-13%) measuring 30 x 45 mm section, assembled with staples</p> <p>Core: Wood particle board, formed by one standard chipboard 45 mm thick (approximate density 540 kg/m³, with a moisture content between 5 to 13%), manufactured by Tableros Hispanos, occupying the entire hollow interior of the supporting frame</p> <p>Facings: Wood fibreboard, CE certified and MDF medium density (approximate density 820 kg/m³, with a moisture content between 4 to 11%), formed by 2 tables of 5 mm thick, type ST manufactured by Tafibra</p>
<i>Frame components density</i>	Increase	Wood fibreboard, CE certified and medium density (approximate density 680 kg/m ³ , with a moisture content between 4 to 11%), reference MDF standard manufactured by Intasa.
<i>Cross-section dimensions</i>	Increase (rebates included)	100 mm width x 28 mm thickness / rebate of 60 mm width x 15 mm depth.



Parameter	Variation allowed	Reference value (sample tested)
<i>Fixings</i>	The number of fixings per unit length used to attach doorsets to supporting constructions may be increased, but shall not be decreased and the distance between fixings may be reduced but shall not be increased.	Fixing subframe to supporting construction with crossed points. Fixing frame to subframe with 8 wood lag screws of 4 x 40 mm, manufactured by Spax, distributed 4 on the hinges side and 4 on the striker side on the frame rebate. The arrangement of the wood lag screws on each side will be made 100 mm from the top and 100 mm from the bottom, and the other two divided leaving 3 holes equal.
<i>Decorative finishes. Paint</i>	Add paint / varnish that does not improve fire resistance of the door	Sample tested without surface paint
<i>Decorative laminates</i>	Decorative laminates and timber veneers up to 1,5 mm thickness may be added to the faces (but not the edges) of leaf door and frame	Sample tested without decorative laminates
<i>Building Hardware</i>	<p>The number of hinges and dog bolts may be increased but shall not be decreased. (locks, hinges, handles)</p> <p>Interchange of building hardware is not covered by the field of direct application.</p>	<p>3 hinges by leaf and mortice lock (one single point)</p> <p><i>Lock:</i> LINCE 5470-60-323</p> <p><i>Cylinder:</i> MCM descentred 30-40</p> <p><i>Handle and keyhole:</i> ARRONE AR961/60</p> <p><i>Door viewer:</i> AMIG 30/50 UL</p> <p><i>Threshold drop seal:</i> EXITEX Concealex A8100 Superior</p>



Parameter	Variation allowed	Reference value (sample tested)
		<i>Hinges:</i> ARRONE AR8182-SSS Hinge 1: 175 mm; Hinge 2: 1035 mm; Hinge 3: 1890 mm Upper edge to upper hinge: 120 mm
	The doorset may be provided either with or without that closing device	<i>Door closing:</i> TELESCO Delta 1300 AS1303S.PL Uninstalled during the test
<i>Size variations</i>	Category A (for classification EI ₂ 60/EI ₁ 30/EI ₂ 30) Unlimited dimensional decrease No dimensional increases	10 min over 60 min for EI ₂ 60 24 min over 30 min for EI ₁ 30 40 min over 30 min for EI ₂ 30 Dimensions: 2110 x 930 x 55 mm
	Category B (for classification EI ₂ 60/EI ₁ 30/EI ₂ 30) Unlimited dimensional decrease The dimensional increase to 15% in height and width is allowed if 20% is not exceeded in the area.	10 min over 60 min for EI ₂ 60 24 min over 30 min for EI ₁ 30 40 min over 30 min for EI ₂ 30 Dimensions: 2110 x 930 x 55 mm
<i>Dimensional reduction</i>	For smaller doorset sizes the relative positioning of movement restrictors (e.g. hinges and latches) shall remain the same as tested or any change to the distances between them will be limited to the same percentage reduction as the decrease of test specimen size.	Lock: Distance from the base of the leaf to the axis of the latch: 1070 mm Hinges: Hinge 1: 175 mm; Hinge 2: 1035 mm; Hinge 3: 1890 mm Upper edge to upper hinge: 120 mm



Parameter	Variation allowed	Reference value (sample tested)
<i>Dimensional Increase</i>	<p>The height of the latch must be equal to or greater than sample tested</p> <p>The distance from the top hinge to the top of the leaf must be equal to or less than the sample tested</p> <p>The distance from the lower hinge to the bottom of the leaf must be equal or lower than in the sample tested</p> <p>When three hinges are used, the distance between the bottom of the leaf and the centre hinge must be equal or higher than the sample tested</p>	<p>Lock: Distance from the base of the leaf to the axis of the latch: 1070 mm</p> <p>Hinges: Hinge 1: 175 mm; Hinge 2: 1035 mm; Hinge 3: 1890 mm Upper edge to upper hinge: 120 mm</p>
<i>Seals. Timber construction</i>	<p>The number, size, location and orientation of any seals in the timber framing shall not be changed</p>	<p>ODICE Palusol PL, 2 seals section 25 x 2 mm and 15 x 2 mm. Fitted in a Groove cut into the frame.</p> <p>ODICE Flexiodice EF BI GW QS. Housed in a slot made in the recess itself.</p> <p>ODICE Interdens 15, 1 mm thickness. In the lock, strike plate, hinges and threshold drop seal.</p> <p>BIFIRE Sealbifire. In door viewer.</p>
<i>Opening direction</i>	<p>Valid for the tested direction</p>	<p>The door has been tested opening towards the furnace.</p>
<i>Supporting construction</i>	<p>Valid for:</p> <p>Rigid standard supporting constructions, density $\geq 745 \text{ kg/m}^3$ and thickness $\geq 100 \text{ mm}$</p> <p>Flexible standard supporting constructions</p>	<p>Double recess with mortar plaster on both sides, total thickness 100 mm 745 kg/m^3.</p>



Parameter	Variation allowed	Reference value (sample tested)
<i>Gaps</i>	The maximum allowable gap for door installation is shown in the test report Gaps less than the maximum allowable	Maximum allowed gaps: Hinges side: 3.7 mm Lock side: 3.1 mm Upper side: 4.1 mm Bottom side: 8.6 mm

6 LIMITATIONS

This document does not represent any type approval or product certification.

The duration of validity of this classification report is subject to the legislation in force at the time of issuance.