RESISTANCE TO FIRE

Classification Report

Report Nr:	**242805**	*Project Nr:*	**PY17-0049**	*Ref Nr:*	**MV68855**
Date of issue	**19/04/2017**				
Accredited Body	**Accredited Body to ENAC (National Accreditation) with the number 288/LE634**				
Test Specimen	**Type:**	**TIMBER SWINGING DOOR SINGLE LEAF**			
	Reference:	**PCM-EI-2017-55 mm 1 leaf with electronic escutcheon XS4 ONE and mortise lock LE7S** **Door A: opening into the furnace**			
	Dimension block:	**2200 x 920 x 55**			
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	**SALTO SYSTEMS, S.L.** **ARKOTZ 9. Pº LANBARREN** **20180 OIARTZUN (GUIPUZCOA)**				
Date/s of tests	**Test Start Date:**	**06/03/2017**			
	End Start Date:	**06/03/2017**			

CLASSIFICATION **EI_1 60/ EI_2 60 / E90**

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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 PRODUCT DESCRPTION

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

Type:	Timber swinging door single leaf Door A : opening into the furnace
Manufacturer:	PCM-PUERTAS CORTAFUEGO DE MADERA, S.L.
Reference:	PCM-EI-2017-55 mm 1 leaf with electronic escutcheon XS4 ONE and mortise lock LE7S Door A: opening into the furnace
Number of leaves:	1
Total Dimension:	2130 X 957 mm
Close action:	Locking by hydraulic door closer and locking bolt
Total dimension:	2285 X 1100 mm
Dimension of leaf:	2200 x 920 mm
Light dimension:	2190 X 900 mm
Leaf thikness:	55 mm
Main Material (leaf and frame):	Timber, fiberboard

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3 TEST REPORTS AND TEST RESULTS IN SUPPORT OF THIS CLASSIFICATION

3.1 Test Reports

Test report Nr.:	*Name of Laboratory*	*Applicant*	*Date of test*	*Test Method*
242676	ENSATEC, S.L.U.	SALTO SYSTEMS	06/03/2017	EN 1634-1:2014

3.2 Test Results

Report Nr: 242676	
INTEGRITY (E): 97 min	
Cotton pad:	97 min (without fail, end of sample evaluation)
Gap gauge Φ6 mm:	97 min (without fail, end of sample evaluation)
Gap gauge Φ25 mm:	97 min (without fail, end of sample evaluation)
Sustained flame:	97 min
THERMAL INSULATION (I_1): 77 min	
Mean temperature:	77 min
Maximum temperature:	77 min
TEST EXTENSION: 97 min	
MAXIMUM DEFLECTION: 39 mm	
CONCLUSIONS:	
The test is stopped at 97 minutes for integrity failure, sustained flames through the side of the hinges at door A. Previously, there had been insulation failures at 77 min (Average temperature) and 77min (Maximum temperature) in Door A	

3.3 Exposure conditions

Direction of fire exposure:	Door A: Opening into the furnace
Number of fire exposed sides:	1
Sample selection:	The samples were selected and sent to the laboratory by the applicant.
Supporting constructions	High density rigid standard supporting construction Lightweight clay block 140 mm thick revoked with mortar on both sides

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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 , timber swinging door single leaf, PCM-EI-2017-55 mm 1 leaf with electronic escutcheon XS4 ONE and mortise lock LE7S, is classified according to the following combinations of performance parameters and classes:

CLASSIFICATION	**EI_1 60/ EI_2 60/E90**

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.

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Parameter	Variation allowed	Reference value (sample tested)
Thickness of the door leaf. *Density*	The door panel thickness and/or density may be increased provided the total increase in weight is not greater than 25 %. The door thickness and/or density of the elements can not be reduced The composition of the particleboards (for example, amount of resin) can not be changed.	Thickness of the leaf : 55 mm Supporting frame: Sandwich material, joined by stapling. The sandwich consists of the following elements: MDF IBERPAN H STRIP FINSA FINSA, 730 kg / m3, section 7 x 40 mm Palusol 100 ODICE 2 mm MDF NORMAL FIBRAPAN FINSA, 730 kg / m3, section 3 x 40 mm Palusol 100 ODICE 2 mm MDF NORMAL FIBRAPAN FINSA, 730 kg / m3, section 3 x 40 mm All items glued and hot-pressed Core: One particle board panel GRENAMAT 40 mm , density 650 kg/m^3 External surface: 2 MDF WATERPROOF board FINSA FIBRANOR exterior d3 mm, density 825 kg/m^3
Density of frame components	Increase	MDF WATERPROOF-IBERPAN H STRIP 730 kg/m^3
Cross-section dimensions	Increase (rebates included)	Section 150 mm x 30 mm Rebate: 17 mm
Fixings	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.	Fixation System: Using anchoring claws, three on each vertical side, the first two placed 300 mm from each end and the third in the central part. No claw has been placed on the head
Decorative finishes. Paint	Add paint / varnish that does not improve fire resistance of the door	Sample tested without surface paint

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Parameter	Variation allowed	Reference value (sample tested)
Decorative laminates	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
Building Hardware	The number of hinges and dog bolts may be increased but shall not be decreased. (locks, hinges, handles) Interchange of building hardware is not covered by the field of direct application.	4 hinges by leaf and mortice lock (one single point) Lock: SALTO SYSTEMS LE7S1565R41IM9 General Reference LE7S
	the doorset may be provided either with or without that closing device	Reader and module control: SALTO SYSTEMS XS4 One serie Ei7xx. E9752U72IMB49 Hinges INTHER SYSTEM EUROPE PCM-1086 CR INOX 304 Distance from hinge bottom to top edge of the leaf: 160 mm, 755 mm, 1350 mm, 1945 mm Door closing: INTHER SYSTEM EUROPE CTB69 EN 2-4 S/ret The doorset has been tested with a door closing device fitted, but with the retention force released
Size variations:	Cathegory B (EI60) Unlimited dimensional decrease The dimensional increase of up to 15% in height and width is allowed if it is not exceeded 20% in area	17 min over 60 min Total Leaf Dimension 2200 mm x 920 mm x 55 mm

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Parameter	Variation allowed	Reference value (sample tested)
Size variations:	Cathegory A (E90) Unlimited dimensional decrease	7 min over 90 min Total Leaf Dimension 2200 mm x 920 mm x 55 mm
Dimensional reduction	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: 1050 mm Hinges: Distance from hinge bottom to top edge of the leaf: 160 mm, 755 mm, 1350 mm, 1945 mm
Increases dimensionales (Only for EI60 classification)	The height of the latch above floor level shall be equal to or greater than the tested height, and such increase in height shall be at least proportional to the increase in door height The distance of the top hinge from the top of door leaf shall be equal to or less than that tested; The distance of the bottom hinge from bottom of door leaf shall be equal to or less than that tested; Where three hinges or distortion preventers are used, the distance between the bottom of the door leaf and centre restraint shall be equal to or greater than that tested.	Lock: Distance from the base of the leaf to the axis of the latch: 1050 mm Hinges: Distance from hinge bottom to top edge of the leaf: 160 mm, 755 mm, 1350 mm, 1945 mm

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Parameter	Variation allowed	Reference value (sample tested)
Seals. Timber constructions	The number, size, location and orientation of any seals in the timber framing shall not be changed	Palusol PL ODICE in the frame , betwen frame and subframe, section 15 x 2 mm Pyroplex ref 20085 ODICE in the frame, betwen fram and leaf, section 15 x 2 mm Palusol 100 ODICE, hidden in the supporting frame, 2 units, section 40 x 2 mm Interdens 15 SA ODICE, thickness 1 mm, lock protection
Opening direction	Valid for both opening directions	The door has been tested opening into the furnace
Supporting construction	Valid for: Rigid standard supporting constructions , density ≥ 899 kg/m3 and thickness ≥140 mm Flexible standard supporting constructions	High density rigid standard supporting construction: lightweight clay blocks 140 mm thickness with mortar plaster on both sides
Gaps	The maximum allowable gap for door installation is shown in the test report Gaps less than the maximum allowable	The maximum size of the primary gaps is restricted to the following sizes in practice: Hinges side: 3.5 mm Lock side: 4.7 mm Upper side: 4.8 mm Bottom side: 10.7 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.

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