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REPORT No. 086146-001-2-a

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PURPOSE	CLASSIFICATION REPORT ACCORDING TO STANDARD EN 13501-2:2016
TESTED SAMPLE	CLADDING PANEL REF. **"Acoustic self-supporting wall cladding (SENOR + CHOVA) EI120"**
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1.- INTRODUCTION

This classification report defines the fire resistance rating assigned to a wall referenced as **"Acoustic self-supporting wall cladding (SENOR + CHOVA) EI120"** in accordance with the procedures established in [C].

1.1 REFERENCE STANDARDS

[A] *EN 1363-1:2020 "Fire resistance tests – Part 1: General Requirements".*

[B] *EN 1364-1:2015 "Fire resistance tests for non-loadbearing elements. Part 1: Walls".*

[C] *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 GENERAL INFORMATION

The sample referenced as **"Acoustic self-supporting wall cladding (SENOR + CHOVA) EI120"** is defined as a non-loadbearing, fire resistant wall as stated in [C] 7.5.2.

2.2. SAMPLE DESCRIPTION

The element, a non-loadbearing wall referenced as **"Acoustic self-supporting wall cladding (SENOR + CHOVA) EI120"**, is fully described below or in the test reports supporting this classification listed in Section 3.1.

The main descriptive characteristics were provided by the applicant.

This information is included in Annex 4 (*) of the test report mentioned in Section 3.1 of this document.

The verification of the sample was carried out during its assembly.

The data of the samples verified by the laboratory are as follows:

Materials used (*):

- Framing:

Designation	Make, model	Material	Cross-section (mm)	Thickness (mm)
[C]	CHANNEL 48	Galvanised steel	30/48/30	0.55
[M]	STUD 48	Galvanised steel	35/48/35	0.60

- Bolts:

Designation	Make, model	Material	Diameter (mm)	Length (mm)
Fixing screw 1st panel [T1]	-	Steel	3.5	45
Fixing screw 2nd panel [T2]	-	Steel	4.5	70
Self-drilling bolt [T3]	-	Steel	3.5	11

- Board:

Designation	Make, model	Material	Dry density (kg/m^2)	Dimensions (mm)
Fire resistant laminated gypsum board (fireproof/firebreak) [P]	-	Laminated gypsum board + fibreglass + additives	20.5	2000x1200x25

- Sealant:

Designation	Make, model	Material	Characteristics
Jointfiller [Pa]	-	Powdered gypsum + additives	20 kg bag

- Strip:

Designation	Make, model	Material	Dimensions (mm)
Joint strip [Ci]	-	Micro-perforated paper	52

- Acoustic insulator:

Designation	Make, model	Characteristics
SENOR acoustic insulator [A1]	SENOR, SE-TAV-500/11A	(see technical datasheet)
SENOR acoustic insulator [A2]	SENOR, SE-TAV-500/11R	(see technical datasheet)
SENOR acoustic insulator [A3]	SENOR, SE-4800/TDM	(see technical datasheet)

- Acoustic strip:

Designation	Make, model	Dimensions
Micro-cellular EPDM CR-130 acoustic strip [Ba1]	SENOR, SE-BEC-6x100	6 mm x 100 mm
Micro-cellular EPDM CR-130 acoustic strip [Ba2]	SENOR, SE-BEC-10x100	10 mm x 100 mm

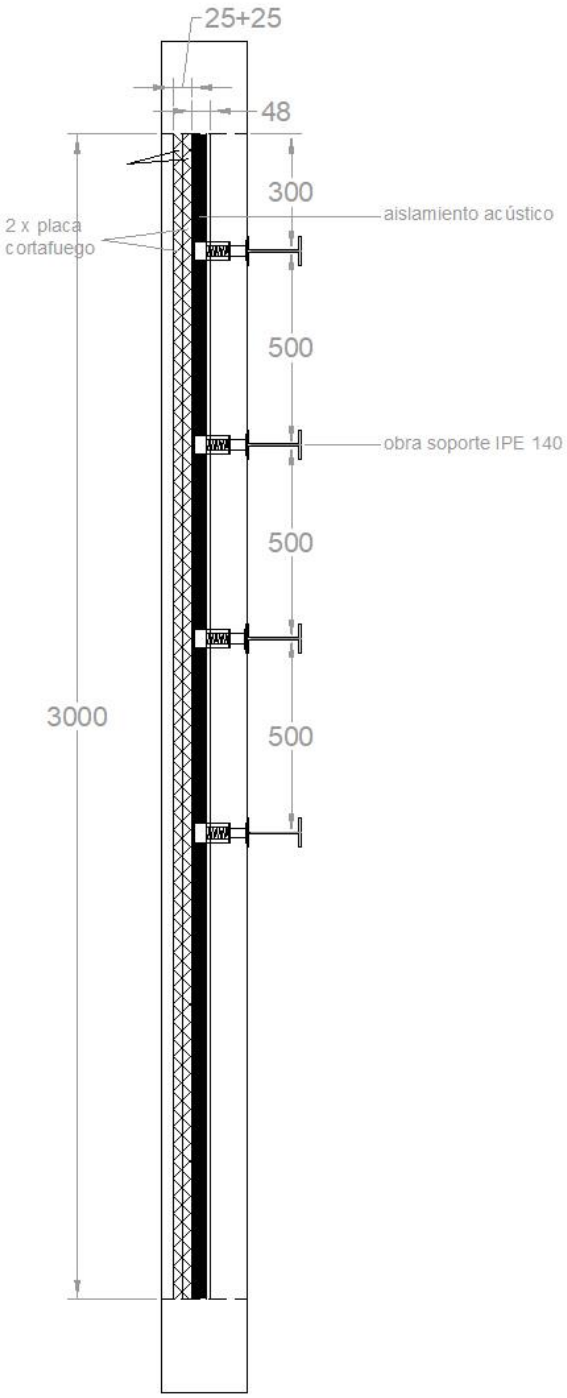
- Sheet:

Designation	Make, model	Material	Width (mm)	Thickness (mm)
Acoustic fibre [L1]	CHOVA, CHOVANAPA	Polyester fibre	400	40
Acoustic sheet [L2]	CHOVA, ViscoLAM	High-density visco-elastic sheet	1000	4

Sample Definition

EI120 cladding panel for interior coating of partitions made up of a structure with channels [C] and studs [M], at 400 mm intervals between axes. The perimeter profiles (channels) have SE-TAV-500/11A acoustic insulators (on the bottom horizontal channel + vertical channels) and SE-TAV-500/11R acoustic insulators (on the upper horizontal channel) to secure them to the frame. On the other hand, the studs [M] are secured to IPE 140 beams of the supporting construction by means of SE-4800/TDM acoustic insulators (See Detail 1). First of all, the CHOVANAPA polyester fibre (L1) is installed between the studs and channels. The first layer of fire-resistant laminated gypsum panels [P] is secured to the studs and channels by means of 45 mm [T1] screws, positioned every 250 mm. The VISCOLAM visco-elastic sheet [L2] is placed on the external side of the first layer of laminated gypsum panels, and the second layer of panels is secured to the exterior layer of the visco-elastic sheet by means of 70 mm screws [T2], positioned every 250 mm All of the joints between panels are fixed to each of the layers with filler [Pa] and joint strips [Ci] are put in place. The heads of the screws of all the boards were also filled. The butt joints will be positioned on the final layer of the side unexposed to fire, in accordance with the diagram. SENOR micro-cellular EPDM CR-130 acoustic strips are installed around the entire perimeter. SE-BEC-6x100 [Ba1] and SE-BEC 10x100 [Ba2].

The sample was tested with dimensions of (3000 x 3000) mm and a free moving edge.



Assembly

Sample assembly was entirely performed by the customer.

No additions were made to the sample subsequent to the laboratory review.

In accordance with [B] 6.3.2, one of the vertical sides of the assembly was not fixed, leaving a gap of 25 mm between the sample side and the test frame, which was filled with a flexible fireproof material.

For further information, refer to the construction details in Annex 1 of the test report included in Section 3.1 of this report.

Supporting construction

Type Non-standard

The test frame has 4 IPE 140 steel profiles (Figure 2 in Annex 2 of the test report shown in Section 3.1 of this report) on which the studs are secured using acoustic supports, as a wall simulation for the fastening of the cladding panel.

3.- TEST REPORT AND TEST RESULTS SUPPORTING THE CLASSIFICATION

3.1 TEST REPORTS

Laboratory name	Applicant's name	Report reference No.	Test method	Direction of test	Test date
TECNALIA RESEARCH & INNOVATION	*SUSPENSIONES ELÁSTICAS DEL NORTE, S.L. (SENOR)*	*086146-001-1-a*	*[B]*	*Asymmetric sample exposed to fire on the panels side*	*23.10.2020*

3.2 RESULTS

Test results

		"Acoustic self-supporting wall cladding (SENOR + CHOVA) EI120"
Integrity (E)		**148 min**
Performance criteria		
Cotton pad	Flaming or glowing of the cotton pad.	148 min(2)
Gauge Ø 6 mm	Openings in the sample which allow the gauge to move more than 150 mm along the opening.	148 min(2)
Gauge Ø 25 mm	Openings in the sample which allow the gauge to pass through.	148 min(2)
Sustained flaming > 10 s	Appearance of sustained flaming on the unexposed side of the sample for more than 10 s.	148 min
Insulation (I)		**140 min**
Performance criteria		
Maximum temperature	Initial temperature of each thermocouple not to be exceeded by 180 ºC.	140 min
Average temperature	Initial average temperature of thermocouples TR1 to TR5 not to be exceeded by 140 ºC.	140 min(1)

(1): Measurement for this criterion was interrupted due to increase of maximum temperature.
(2): Measurement for this criterion was interrupted due to sustained flaming.

4.- CLASSIFICATION AND FIELD OF APPLICATION

4.1. CLASSIFICATION REFERENCE

This classification was carried out in accordance with [C] Clause 7.

4.2. CLASSIFICATION

In accordance with [C] the division, referenced as **"Acoustic self-supporting wall cladding (SENOR + CHOVA) EI120"**, exposed on the side of the panels, the classification is:

EI							**120**		

E							**120**		

Fire Resistance Classification: EI15

Fire Resistance Classification: EI20 E20

Fire Resistance Classification: EI30 E30

Fire Resistance Classification: EI45

Fire Resistance Classification: EI60 E60

Fire Resistance Classification: EI90 E90

Fire Resistance Classification: EI120 E120

4.3 DIRECT FIELD OF APPLICATION

The direct field of application of the test results refers to those changes that can be made on a sample after a fire resistance test with a satisfactory result. These variations can be entered automatically without the need for the applicant to obtain additional evaluations, calculations or approvals.

Parameter	Permitted variation	Tested sample
General outer dimensions.	Reduction in height	(3000x3000) mm.
	Increase in wall thickness	102 mm of total thickness: 2 layers of 25 mm Firebreak Panel + 48 mm Knauf Stud + 4 mm visco-elastic sheet.
	Unlimited increase in width, maintaining the tested construction system	To maximum dimensions (3000 mm) and with a free moving edge
	Increase in height of up to 1.0 m more	Tested at a height of 3000 mm with supporting construction The maximum deformation does not exceed 100 mm The thermal expansion tolerances increase proportionately
Component dimensions.	Reduce linear dimensions of the panels except for the thickness	Panels 1200 mm in width and 2000 mm in height
	Increase in thickness of constituting materials	Board thickness: 25 mm Channel thickness: 0,55 mm Stud thickness: 0,6 mm Acoustic strip 1: 6 mm Acoustic strip 1: 10 mm Polyester fibre: 40 mm Visco-elastic sheet: 4 mm
Construction details.	Reduce the distance between studs	400 mm between studs
	Increase quantity of vertical seals of the same type as the one tested	Continuous vertical joints

Parameter	Permitted variation	Tested sample
	Reduce the distance between attachments.	Boards secured every 250 mm

Any modifications that have not been expressly included in the sections above will not be considered for the purpose of possible changes without due additional express approval.

5.- LIMITATIONS

This classification report does not represent any sort of product approval or certification.