



TEST REPORT

No.0428-24-TR-01

Fire Resistance Test for **“Latched Palm strand board (PSB) Fire Rated Single door”** as per Technical Documentation No. ABS00036-STD-FR-PSB-116 No. ABS00036-STD-FR-PSB-123.

according to:

- UL10-C:2016(R2021)

Date of issue:

July 19 2024

1 EXCLUSIVE SUMMARY

Test method:	UL10-C:2016(R2021) – Positive Pressure Fire Tests of Door Assemblies	
Name and address of the testing laboratory:	Emirates Safety Laboratory Al Warsan III, Dubai United Arab Emirates	
Date of specimen(s) delivery:	Test element with the technical documentation was delivered by the manufacturer to the laboratory on 20 th of June 2024	
Date of specimen(s) installation:	24 th June 2024	
Date of testing:	27 th June 2024	
Name and address of the test sponsor:	Abanos Furniture & Decoration Industry LLC P.O. Box 114480 Dubai Investment Park 1 Dubai United Arab Emirates	
Name and address of the manufacturer/supplier:	Door and Frame Assembly – Abanos Furniture & Decoration Industry LLC P.O. Box 114480 Dubai Investment Park 1 Dubai United Arab Emirates	Door and Frame Core – Al Talah Board Manufacturing Co. LTD Abu Dhabi Free Zone (KIZAD), Plot no KHIA4-05 Taweelah, Abu Dhabi, United Arab Emirates
Name of the test specimen(s):	Latched Palm strand board (PSB) Fire Rated Single doors	
Identification of the test specimen(s):	Two wooden single leaf doors were installed in a high density rigid supporting construction with butt hinges and locks (with hinges on the exposed side, opening towards the furnace.)	
ESL Identification number:	0428-24-03 (Door 1) – PSB 116 1-layer door leaf core, opened toward the furnace 0428-24-04 (Door 2) – PSB 123 2-layer door leaf core, opened toward the furnace	
Description of sampling procedure including date if applicable:	Test specimens were selected, marked, and signed by Mr. Alireza Tabatabaei from Intertek Middle East (Certification Body) on 14 06 2024 as shown below, and delivered to ESL by the test sponsor. The results apply to the specimens as received. The Laboratory members were not involved in the sampling process.	



2 TEST CONDITIONS

Heating temperature of the test element:

The standard temperature-time curve was maintained within its allowable limits according to UL 10C. The furnace thermocouples were placed at 6 in. (152 mm) from the surface of the test element. Heating conditions are shown in Graphs 1 and 2.

Furnace pressure:

The pressure in the furnace has been established at the top of the assembly and 40in. above the sill, in accordance with paragraph 7.2 of UL 10C. The pressure level during the test is shown in Graph 3.

Ambient temperature:

Measured during the test at 2000mm away from the specimen's unexposed face, at the test's commencement was 32.9°C. The ambient temperature during the test is shown in Graph 6.

3 DESCRIPTIONS OF THE TEST SPECIMEN

Constructional details of the single leaf doorsets of dimensions in the below table are presented in the technical documentation enclosed to this report.

Table 1

Measurement	Nominal (mm)		Measured by ESL (mm)	
	Door 1	Door 2	Door 1	Door 2
Width of the door leaf	1000	1000	1001	1000
Height of the door leaf	2440	2440	2442	2442
Door leaf thickness	44	44	44.6	43.7
Door frame thickness (jamb)	120	120	120	120
Door frame (w x h)	1064 x 2477	1064 x 2477	1066x2480	1064 x 2475
Door frame clear opening (w x h)	-	-	980 x 2435	980 x 2435

3.1 Description of the doorset

3.1.1 Door Frame Construction:

3.1.1.1 Door 1:

The door frame, of 120x44mm cross-section, was made of Desertboard Palm strand board manufactured by Al Talah Board, with a density of 650 kg/m³. The door stop of 72x15mm of the same material and density was created within the door frame cross-section (see Figure 1).

The architrave consists of 18x60mm and 18x40mm thick Desertboard PSB with a density of 880 kg/m³, was fixed on the exposed and unexposed sides, respectively.

3.1.1.2 Door 2:

The door frame, measuring 120x44 mm, was made of Desertboard Palm strand board (PSB) produced by Al Talah Board, with a density of 650 kg/m³. The door stop of 72x15mm of the same material and density was created within the door frame cross-section (see Figure 1).

The architrave consists of 18x60mm and 18x40mm thick Desertboard PSB with a density of 880 kg/m³, was fixed on the exposed and unexposed sides, respectively.

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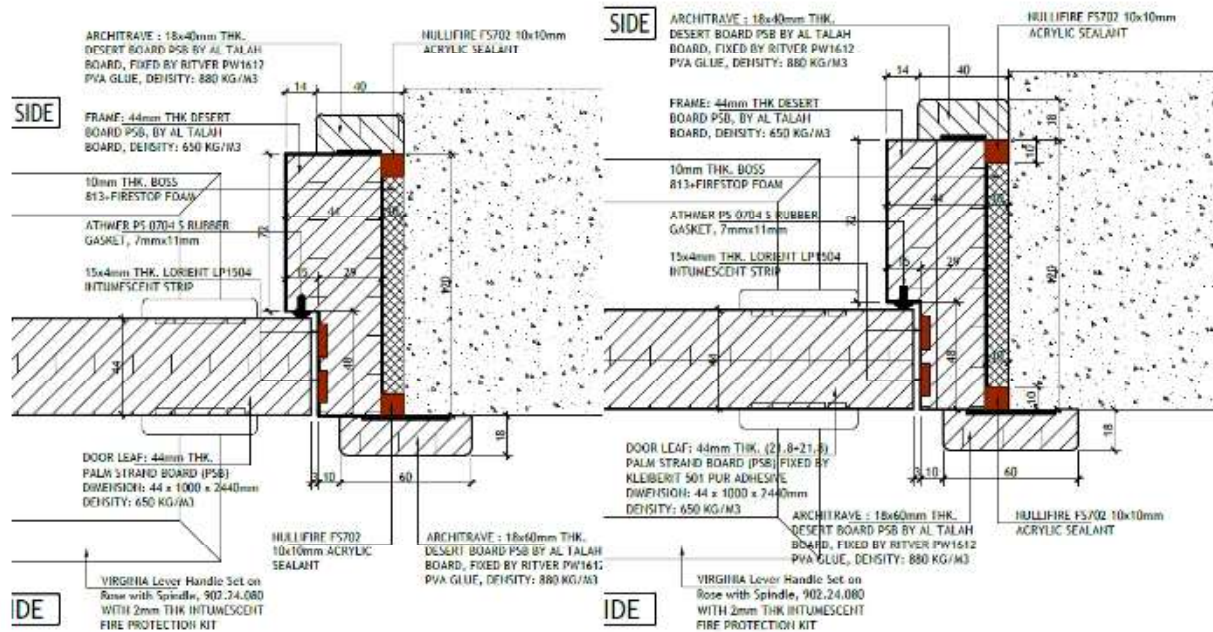


Figure 1. Door frame profile and door leaf core construction with sizes for Door 1 and 2, respectively.

3.1.2 Door Leaf Construction:

3.1.2.1 Door 1:

The 44mm thick door leaf of dimensions 2442x1000mm consisted of Desertboard PSB with a density of 650 kg/m³.

3.1.2.2 Door 2:

The door dimensions were 2442x1000x44mm and it consisted of two (2) layers of 21.8mm thick Desertboard PSB with a density of 650 kg/m³ which were joined with the use of Kleiberit 501 PUR Glue produced by Kleiberit.

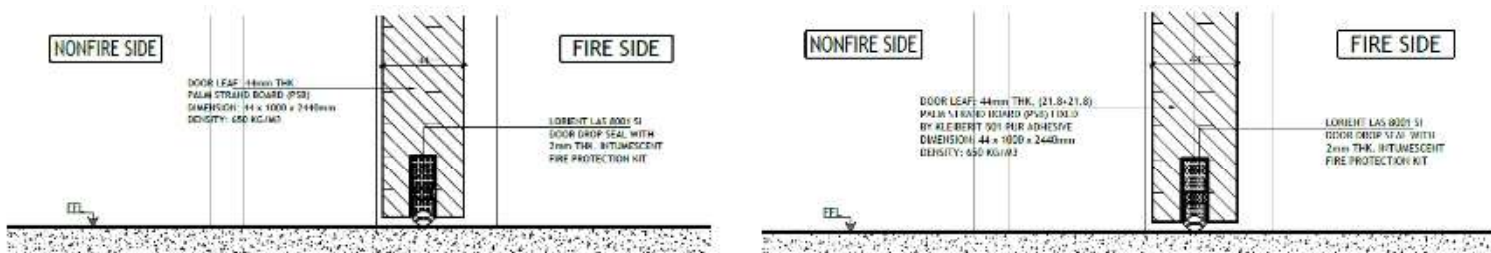


Figure 2. Bottom edge detail for door 1 and door 2, respectively Doorset gaskets:

Both of the doorsets have the same gaskets.

- 2 pcs of 15x4mm PVC encapsulated fire seal (LP1504), produced by Lorient – see figure 1 and photo 1- door frame rebates.
- 1 pc of drop seal (LAS 8001 SI) with 2mm intumescent fire protection kit, produced by Lorient – see figure 2 and photo 2 – bottom of the door leaf.
- 1 pc of 11x7mm Rubber gasket (PS-0704-S), produced by Athmer – see figure 1 and photo 1 – door frame rebate.