HARDWARE PERFORMANCE SHEET No. 24276B

Identification and summary of test evidence to facilitate the inter-changeability of building hardware for application to fire resisting and/or smoke control doorsets and/or openable windows

1. BUILDING HARDWARE IDENTIFICATION

Line:	Feature:	Required indication / properties:
1.1	HPS No. / version	24276B EN 16035:2023
1.2	Date	11/12/2025
1.3	Prepared by	Prepared by Seppe Noyez on behalf of WFRGent nv
1.4	Manufacturer	RF-TECHNOLOGIES NV Lange Ambachtstraat 40 9860 Oosterzele Belgium
1.5	Type of building hardware	Air transfer grille
1.6	Product line	GZ60
1.7	Relevant EN standard or EAD	EN 1634-2:2008 EAD 351141-00-1104:2020
1.8	Classification / performance	No classification based on an EN product standard or performance based on an ETA related to an EAD was provided.
1.9	Test evidence used	Test report 24276A

2. TEST EVIDENCE USED

2.1	HPS No.	24276B
2.2	No. of test evidence	24276A
2.3	Product version	GZ60
2.4	Main dimensions of the specific building hardware	1) Frame: - Type: Palusol 100 in polystyrene envelope - Material: on the basis of hydrous sodium silicate - Outer dimensions: 595 mm x 395 mm - Section dimensions Palusol 100: 2 strips of 38 mm x 1.9 mm (NV) - Section dimensions: 54 mm x 7.1 mm (NV) 2) Horizontal slats: - Type: Palusol 100 in polystyrene envelope - Material: on the basis of hydrous sodium silicate - Section dimensions Palusol 100: 2 strips of 45.7 mm x 1.9 mm (NV) - Section dimensions: 52.7 mm x 22.4 mm (NV) - Number of slats: 19, c/c distance: 20 mm 3) Steel rod - Material: Steel - Diameter: 4 mm - Length: 392 mm - Number: 6, c/c distance: 100 mm - Fixing: In between the horizontal frame profiles [7]

		4) Spacer - Material: PA6 - Diameter: 8 mm - Length: 11.5 mm - Position: In between the horizontal slats [8] around the steel rod [9] 5) Finishing frame - Material: Polystyrene - Thickness: 2 mm (NV) - Outer dimensions GzKF: 627.2 mm x 427.2 mm x 23 mm - Outer dimensions GzKV: 627.2 mm x 427.2 mm x 16 mm
2.5	Fixing, building hardware to element	Fixed with sealant (Soudal Firecryl FR, thickness: 2.5 mm)
2.6	Settings	/
2.7	Type of doorset or openable window	Timber doorset
2.8	Type and material of the element frame	Palusol 100 in polystyrene envelope
2.9	Element frame thickness	55 mm
2.10	Mode of operation	/
2.11	Mounting position building hardware	Mounted through the doorset
2.12	Building hardware is mounted on	/
2.13	Leaf mass	Core: 400 kg/m³ (NV) Facing: 900 kg/m³ (NV)
2.14	Leaf width	1000 mm
2.15	Leaf height	1000 mm
2.16	Leaf thickness	50 mm
2.17	Thermal separation	/
2.18	Insulation layer	/
2.19	Intumescent layer	/
2.20	Seals or gaskets	Reference: Soudal Firecryl FR Material: Acrylic sealant Position: Between the air transfer grille and the door panel
3. PERFORMANCE LEVEL(S) FIRE RESISTANCE		
3.1	Related HPS No. and test evidence used	24276B
3.2	Fire resistance test	EN 1634-2
3.3	No. Test report	24276A
3.4	Notified test body	WFRGent nv BELAC 196-TEST
3.5	Direction of test exposure	/
3.6	Precondition test	/

3.7	Classification	E60 EI60 EW60
3.8	Observations during the test related to hardware	See annex 1-2
3.9	Applicable EXAP Standard	EN 15269-3
3.10	Data Confirmed by	WFRGent nv BELAC 196-TEST

SIGNED	APPROVED
Seppe Noyez (Signature) Project Leader Ghent 2026.02.09 11:49:13 +01'00'	Seppe Van Damme (Signature) Project Leader Ghent 2026.02.09 12:40:31 +01'00'

Signed for and on behalf of Warringtonfire Gent.

OBSERVATIONS DURING THE TEST

Air transfer grille 1 (Positive pressure zone, GZKF at exposed side)

Time in minutes	Observations
0	Start of the test.
	Minimal smoke and water vapour development.
1	Light smoke and water vapour development in the top right corner.
2	The smoke and water vapour development has stopped.
4	Minimal smoke and water vapour development in the top right corner.
11	The smoke and water vapour development has stopped in the top right corner.
26	Minimal smoke and water vapour development in the top right corner.
56	Minimal smoke and water vapour development at the right side.
58	Furnace glow visible at the right side.
	The temperature rise on the element amounts to 50°C – measured with the roving thermocouple in the top right corner.
60	Minimal smoke and water vapour development in the top left corner.
62	**Sustained spontaneous flaming at the top left air transfer grille.**
62	The maximum rise in temperature ΔT_M on the element exceeds 180°C – measured by thermocouple No. 16.
70	End of the test (in consultation with the sponsor).

Remark: The ambient temperature during the test was 21°C.

Air transfer grille 2 (Positive pressure zone, GZKV at exposed side)

Time in minutes	Observations
0	Start of the test.
	Minimal smoke and water vapour development.
2	The smoke and water vapour development has stopped.
70	End of the test (in consultation with the sponsor).

Remark: The ambient temperature during the test was 21°C.

Air transfer grille 3 (Negative pressure zone, GZKF at exposed side)

Time in minutes	Observations
0	Start of the test.
2	Intermittent flames.
	Minimal smoke and water vapour development.
3	The smoke and water vapour development has stopped.
5	Minimal smoke and water vapour development at the top corners.
69	Furnace glow visible at the right side.
70	End of the test (in consultation with the sponsor).

Remark: The ambient temperature during the test was 21°C.

Air transfer grille 4 (Negative pressure zone, GZKV at exposed side)

Time in minutes	Observations
0	Start of the test.
2	Intermittent flames.
	Minimal smoke and water vapour development.
3	The smoke and water vapour development has stopped.
5	Minimal smoke and water vapour development at the top corners.
56	Minimal smoke and water vapour development in the left top corner.
70	End of the test (in consultation with the sponsor).

Remark: The ambient temperature during the test was 21°C.

Section of the air transfer grille - dimensions.