



PRODUCT BROCHURE

Personal Panel Door (insulated EPS sandwich-panel personnel door)

A made-to-measure single-leaf pedestrian door whose leaf is cut from the same Chromadek-faced, fire-retarded EPS (FRCel) sandwich panel as the wall it sits in, hung in a lipped steel C-section jamb that either clips over the cut edge of an EPS panel wall or fits inside a brick reveal.

DOCUMENT	ISSUED	PRODUCT	STATUS
TP-BR-PANEL-DOORS	2026-07-14	panel-doors	Issued for use

OVERVIEW

The Personal Panel Door closes an opening in a panelised building with the same panel the building is made of. The leaf is cut from Technopol's laminated sandwich panel - two Chromadek coated-steel skins bonded to a fire-retarded expanded-polystyrene (FRCel) core - and hung in a lipped steel jamb sized to the wall panel thickness, so the insulated envelope is not interrupted by a hollow timber or steel door blank. It is ordered to seven measured dimensions and supplied as a complete set: leaf, jamb and ironmongery. It is not a fire door, it is not a security door, and it is not a freezer door.

The leaf is a laminated sandwich panel, identical in build-up to a LiteSpan wall panel: two Chromadek / galvanised coated-steel skins (0.3, 0.4 or 0.5 mm; 0.5 mm is the default in the door-leaf calculator) bonded with a laminating adhesive at 400 g/m² per face to a fire-retarded EPS (FRCel) core, smooth-faced both sides, on a 1145 mm laminated cover width. That 1145 mm is also the maximum single-piece leaf width: a leaf wider than 1145 mm is made up from more than one panel width, and therefore contains a longitudinal joint. Leaf core thickness is 44 mm or 50 mm on the priced configurations; dimension C is a made-to-measure input. The jamb sizes on the price list (44, 50, 60, 75 and 100 mm) are there to match the WALL panel thickness the jamb has to grip - they are not a leaf-thickness range. The leaf edge is capped and hung in a lipped steel C-section jamb supplied in 6 m lengths, with U-channel in 40, 44, 50 or 54 mm. Ironmongery is a lever handle on a backplate, a keyed mortice/cylinder lock with keyhole, backing plates, hinges (a set of two on a single leaf, six on a double), a perimeter seal and pop rivets; hardware is factory-fitted or supplied loose, left- or right-handed, with the handle position custom in both axes. Every door is ordered against seven dimensions (A to G, all in mm): A panel door width, B panel door height, C panel thickness, D door jamb frame opening, E brick wall opening, F handle vertical offset, G handle horizontal offset. The priced templates are a 2000 x 800 mm single door (or 2032 x 830 mm on a 44 mm panel with a made-up 50 mm jamb), an 1800 x 600 mm doghouse door, a double door built from two 3000 x 1500 mm leaves with a 50 mm jamb section used as the catch, and a door-with-window variant carrying a 665 x 665 mm aperture. Those are the configurations the calculator prices; anything within the A-G schedule can be made.

KEY FACTS

PROPERTY	VALUE
Product type	Made-to-measure single-leaf pedestrian (personnel) door; leaf cut from a Technopol laminated EPS sandwich panel, hung in a lipped steel C-section jamb^o
Steel skins	Chromadek / galvanised coated steel, 0.3 / 0.4 / 0.5 mm (0.5 mm default)
Core material	Fire-retarded expanded polystyrene (FRCel), 15 to 24 kg/m³ depending on the grade ordered (15 = wall grade, 24DV = high-traffic grade). StoneWool or PIR core on request; neither adds a fire-resistance rating - see the fire note below
Laminating adhesive	400 g/m² per face (800 g/m² total)
Panel cover / maximum single-piece leaf width	1145 mm laminated cover. A leaf wider than 1145 mm is made up from more than one panel width, which puts a longitudinal joint in the leaf - ask for the joint detail with the quotation
Leaf core thickness (dimension C)	44 mm or 50 mm on the priced configurations; made-to-measure input. The jamb size range (44-100 mm) matches the wall panel the jamb grips, not the leaf

PROPERTY	VALUE
Jamb	Lipped steel C-section gripping the panel/leaf edge; 44, 50, 60, 75 and 100 mm, supplied in 6 m lengths. Choose the jamb to suit the wall panel thickness and state that thickness on the order
U-channel / capping	40, 44, 50 or 54 mm, supplied in 6 m lengths; the window aperture on a glazed leaf uses 40 mm capping with a retaining angle
Reaction to fire	The panel the leaf is cut from carries class B-s1,d0 to SANS 53501-1 (Ignis Testing IT 24-06-00029, valid to 2029-06-24). Scope, to be quoted with the class: the specimen tested was the 150 mm faced panel; the report covers insulation panels for cold rooms and names no roof profile; and under report clause 6.13 the class applies where the panel is used as INSULATION, not as a fire division. The FRCel core carries the same class in its own right as a bare 60 mm sheet (Ignis Testing IT 23-08-00009, valid to 2028-08-04)
Fire resistance (FR minutes / REI)	None. This doorset carries a reaction-to-fire class, not a fire-resistance rating. It is not a fire door and it is not a fire division[°]
Leaf R-value (centre of leaf, installed, +Rsi 0.13 +Rse 0.04)	1.42 m2K/W on a 44 mm core; 1.59 m2K/W on a 50 mm core. Centre of leaf, unglazed - the steel jamb is a thermal bridge and is not in this figure
Leaf U-value (centre of leaf)	0.70 W/m2K on a 44 mm core; 0.63 W/m2K on a 50 mm core. This is not the whole-door U-value: model the door with its jamb bridge
Leaf self-weight	Bare leaf approx. 9.4-9.9 kg/m2 (0.5 mm skins 7.85 kg/m2 + 50 mm core 0.75-1.20 kg/m2 + adhesive 0.80 kg/m2). A 2000 x 800 mm leaf (1.6 m2) is approx. 15-16 kg bare; a 3000 x 1500 mm double-door leaf (4.5 m2) is approx. 42-44 kg bare. Excludes edge capping, rivets, seal, jamb and ironmongery
Service temperature	Keep the leaf below about 70-80 degC. EPS softens and creeps above that range[°]
Certification	Agreement SA 2020/609 covers the LiteCore Building System as a non-load-bearing wall; it does not cover this door. ISO 9001:2015 (EQCSA, Reg. Q 2016024) is Technopol's company quality-system certification[°]
Ordering	Made-to-measure to seven dimensions A-G (all mm); the size hierarchy is A (leaf) < D (jamb frame opening) < E (brick wall opening)[°]

[°] Catalogue or declared value — Technopol holds no test report for this figure. It is the value we publish for the grade, not a measurement of the delivered batch. Where a figure is load-bearing in your design, specify batch testing. Every test report and certificate we do hold, with its current status, is at technopol.co.za/verify.

WHERE IT IS USED

- Personnel doors in LiteSpan and NuClad panel walls, where the door should not be the hole in the insulation.
- Chill rooms and above-zero cold rooms.
- Doors in EPS panel-built houses, cabins and site offices.
- Poultry-house and other agricultural building doors.
- Internal and back-of-house openings anywhere in a Technopol EPS panel envelope.

- Retrofitting an insulated door into an existing brick or masonry reveal (the second jamb detail, dimension E).

WHERE NOT TO USE IT

- Not for use as a fire door or in a fire division. A fire division needs a fire-resistance rating in minutes (FR30, FR60, REI) for the complete assembly; this doorset carries a reaction-to-fire class, which is a different thing. Where the fire engineer schedules a rated door, use a certified fire-door set tested and labelled to SANS 10177-2 / SANS 1253, hung in its certified frame with its certified ironmongery. A StoneWool or PIR core does not change that: a fire-door rating belongs to a tested doorset, not to a core material.
- Not for freezer or deep-freeze rooms. The jamb is a bare lipped steel C-section with no frame heater, no thermal break and no vapour-tight cold-store gasket. Below dew point it will condense, ice up, and eventually freeze shut or corrode. Use a purpose-built cold-store door set with a heated frame and cold-store gasketing.
- Not for main entrances, street-facing doors, security doors or any high-traffic, abuse-prone position. The leaf is 0.3-0.5 mm steel skin over a 44-50 mm EPS core. It resists neither forced entry nor repeated kick and trolley impact, and a punctured skin exposes the core.
- Not for openings carrying sustained heat - beside flues, in boiler rooms, over kilns or ovens, or anywhere the leaf surface stays above roughly 70-80 degC. EPS softens and creeps in that range: the core deforms, loses thickness and delaminates from the skin.
- Not where a declared acoustic (Rw), air-tightness or water-tightness figure is a contract requirement. This doorset carries no such rating; specify a doorset that does.
- Not as a structural or bracing element. The leaf carries nothing and spans nothing: no load, span or racking figure attaches to it, and the LiteSpan load/span design tables cover the wall and roof panels, not a hinged leaf.

How to read this document. Every technical value carries a label saying where it came from — whether an accredited laboratory measured it, whether Technopol measured it, or whether it is simply the figure the standard tabulates for that class of material. Values we have not tested are marked as such rather than presented as test results.

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