TECHNOPOL SA
ENERGY SAVING MATERIALS

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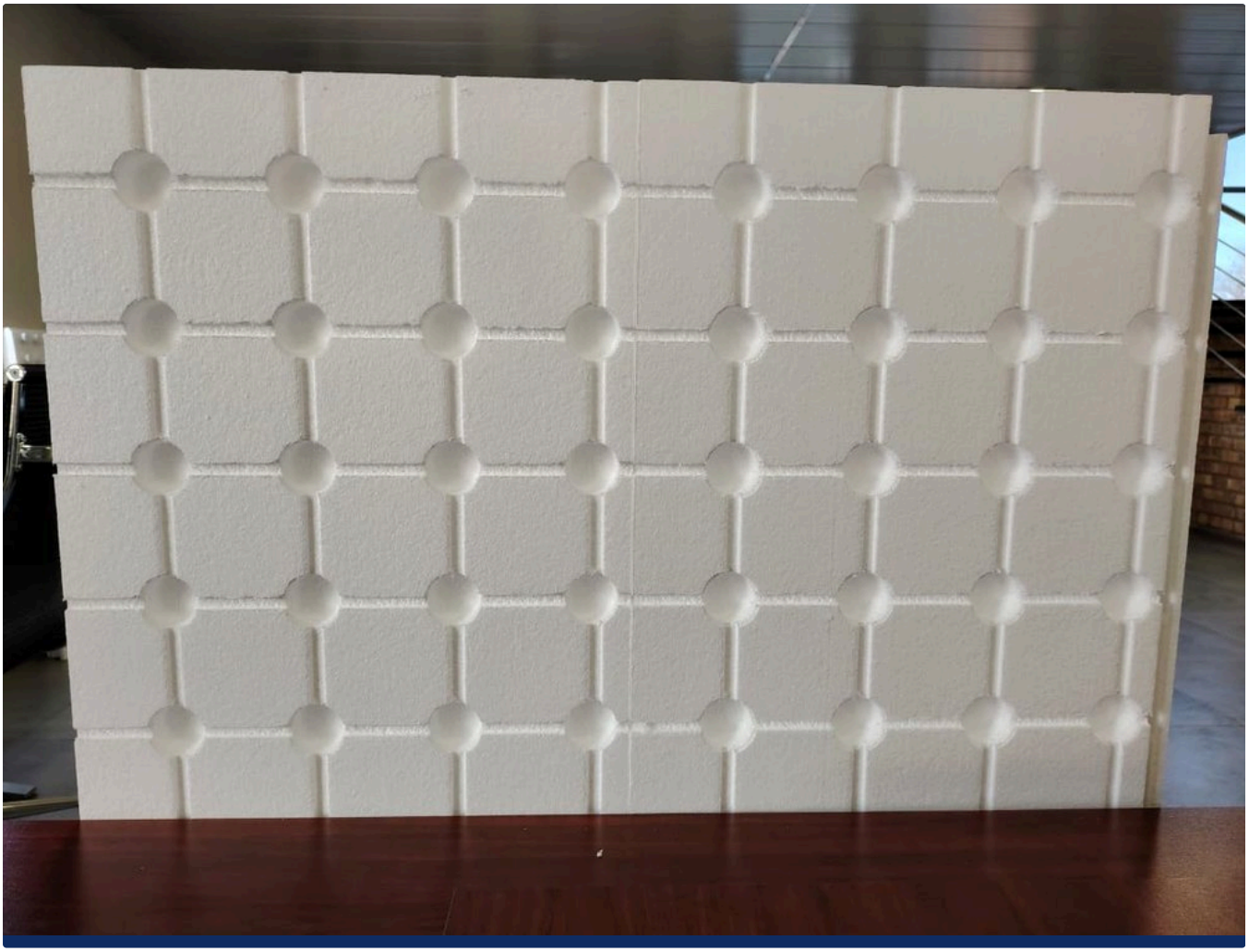


PRODUCT BROCHURE

LiteCel® CD — EPS Cavity and Drainage System

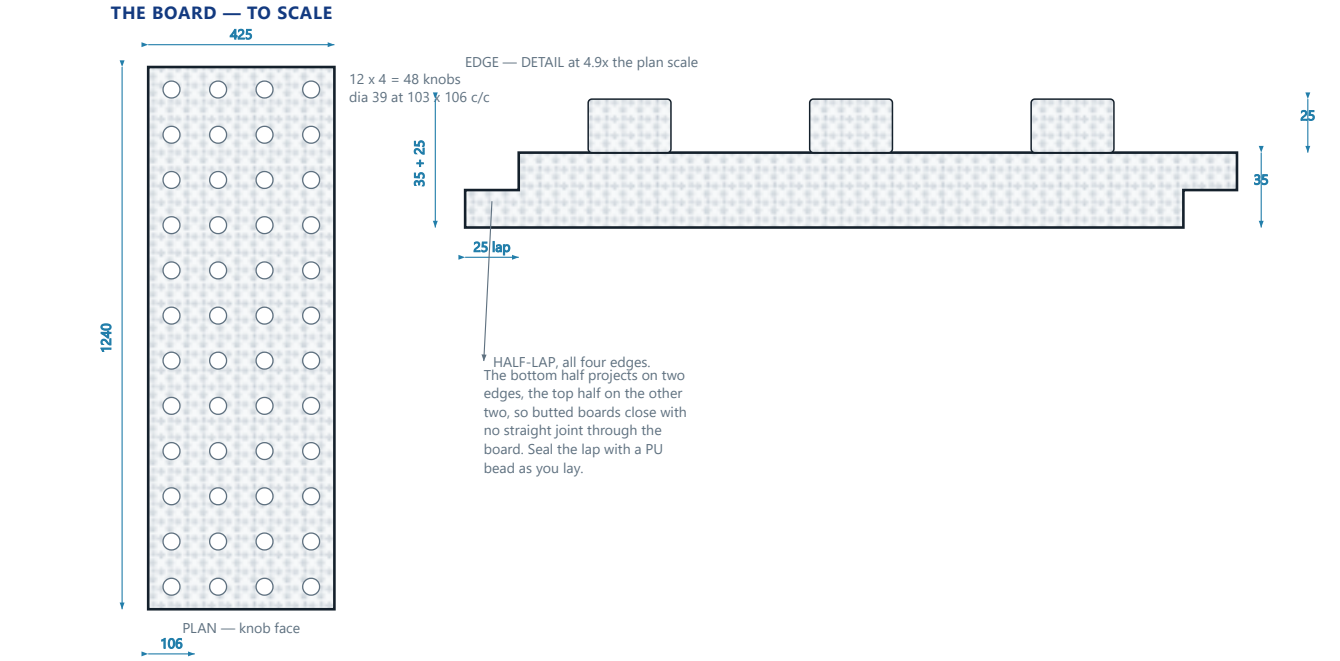
Moulded EPS cavity board with drainage knobs on one face, and the SANS 28 double-triangle tie that passes through it — insulation, a drained 25 mm cavity and the tie, specified and supplied as one system.

DOCUMENT	ISSUED	PRODUCT	STATUS
TP-BR-LITECEL-CD	2026-07-17	litecel-cd	Issued for use

OVERVIEW

LiteCel® CD is one system, not two products bought separately. The board is a moulded EPS panel with knobs on its outer face; the tie is the SANS 28 double-triangle tie that passes through the board and into both leaves. The knobs hold a clear 25 mm cavity open against the outer leaf, so rain driven through the face brick runs down the channels between them, reaches the DPC and leaves through the weep holes, while the 35 mm EPS base insulates the wall behind it. The board is 425 mm high — five brick courses, which is also the vertical tie spacing, so the tie course and the board course are the same course. Board and tie are detailed together because neither works without the other: the cavity the tie has to cross is the cavity the board creates.

The laying module is 1240 × 425 mm, covering 0.527 m^2 of wall. It is moulded at a nominal 30 kg/m^3 from expanded polystyrene: a 35 mm base with 48 knobs standing 25 mm proud of it, giving a 60 mm overall build-up — 35 mm of insulation plus a 25 mm drained cavity. A 25 mm half-lap runs around all four edges, so boards sit snug in series and the knob pitch runs unbroken across the joint. Under every knob is a socket of the same diameter and depth, so boards nest when stacked: a second board adds its 35 mm base, not a second 60 mm. That is how a higher R-value is reached without a thicker mould. The same board also serves as a drainage layer against vertical surfaces such as basement and retaining walls, and on horizontal surfaces such as an inverted roof, where the knobs hold the drainage plane open and the EPS insulates and protects the waterproofing behind it. The tie is the double-triangle type of SANS 28 Table 4, in 150 and 200 mm lengths, in galvanised mild steel at 4,3 mm or stainless at 4,0 mm. The single-wire type is not offered for cavity walls: SANS 10164-1 5.2.1.4(b) excludes it.



The 1240 x 425 mm laying module: a 35 mm EPS base carrying 48 moulded knobs that stand 25 mm proud, and a 25 mm half-lap on all four edges. Plan and section are drawn 1:1 against the scale bar.

KEY FACTS

PROPERTY	VALUE
Laying module (H × L)	**425 × 1240 mm**°
Coverage per board	**0.527 m^2**
Build-up	**35 mm EPS base + 25 mm drainage knobs = 60 mm overall**°
Nominal density	**30 kg/m^3**°
Thermal resistance R — 35 mm EPS base	**0.97 m^2K/W (estimated)**°
Thermal resistance R — 25 mm drainage cavity (vertical, unvented top)	**0.16–0.18 m^2K/W (estimated)**°
Thermal resistance R — board + cavity	**1.13–1.15 m^2K/W (estimated)**°
Typical cavity wall performance	**R 1.6–1.8 m^2K/W; U 0.55–0.63 W/m^2K — dependent on wall construction and finishes**°
Wall tie — type	**Double triangle**°
Wall tie — lengths (L)	**150 ± 5 and 200 ± 5 mm**°
Wall tie — wire diameter	**4,3 ± 0,1 mm galvanised mild steel; 4,0 ± 0,1 mm stainless**°
Wall tie — zinc coating	**Minimum mass of zinc 750 g/m^2, measured on the finished tie**°
Wall tie — spacing, LiteCel detail	**425 mm vertical (every fifth course, matching the board height) × 600 mm horizontal = 3,92 ties/m^2**
Weep holes	**600 mm centres in the vertical joint**°

° Catalogue or declared value. Where a figure is load-bearing in your design, confirm it for the material supplied — on a load-bearing application, by testing the product delivered to your site.

WHERE IT IS USED

- Masonry cavity walls — insulation and a drained 25 mm cavity in one board, with the tie course and the board course the same course.
- Drainage and protection board to vertical surfaces — basement and retaining walls, where the knobs hold the drainage plane open against the backfill and the EPS protects the waterproofing.
- Drainage and insulation layer on horizontal surfaces — inverted roofs and podium decks, above the waterproofing.
- Stacked build-ups where a higher R-value is required — boards nest knob-into-socket, each added board contributing its 35 mm base.

WHERE NOT TO USE IT

- Not a cavity fill. The 25 mm gap the knobs hold open is the drainage path. Anything that bridges it — mortar droppings above all — defeats the system.
- Not with a wire tie where the cavity exceeds 75 mm. SANS 10164-1 5.2.1.4(c) requires a vertical-twist strip tie above that width.
- Not a structural element. The board carries no vertical load and does not restrain the leaves; the tie does that.

- Not for permanent UV exposure. Cover the board within the construction programme.

How to read this document. Where a figure is load-bearing in your design, confirm it for the material actually supplied — on any load-bearing application, by testing the product delivered to your site. That is the right way to buy from anybody, including us.

This is product information, not a design. It does not replace a competent person. Technopol SA (Pty) Ltd · info@technopol.co.za · +27 11 363 2780 · The test reports and certificates cited here are held by Technopol and their current status is available on request.