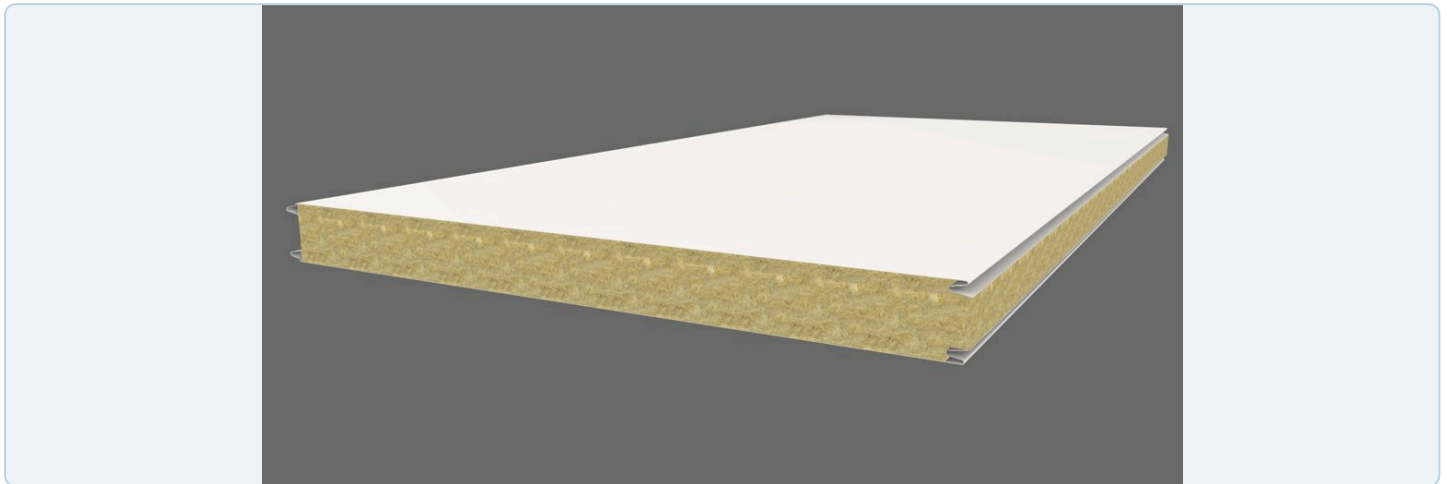


Cold-Room & Freezer Panels (LiteSpan StoneWool / NuClad)

Non-combustible StoneWool-cored insulated sandwich panels for cold rooms, freezers and fire walls.



Overview

Technopol's cold-store envelope is built from insulated sandwich panels: two steel skins (Chromadek or NuClad profiled cladding) bonded to a StoneWool (basalt mineral-wool) core and joined with interlocking "Crocodile Connector" channels. The StoneWool core is the non-combustible (Euroclass A1 material) member of the LiteSpan family — the choice for cold rooms, freezers, food plants and fire-separating walls — and is available in wall/ceiling, roof/walk-on and acoustic grades, from 45 to 150 mm. Where a lighter, lower-cost panel is acceptable, the same system runs a PIR or FRCell fire-retarded EPS core. Panels interlock with Chromadek cover strips and stainless pop-rivets (riveting the joint is decisive to fire performance), suit wall, ceiling, roof and overlaid details, and are matched by insulated cold-room doors. Envelopes are designed to the AAAMSA/TPMA cold-store specification (2006).

Applications

- Cold rooms and blast/holding freezers (personnel and product areas)
- Food-processing and meat plants — hygienic, washable, fire-separating walls
- Fire walls and occupancy-separating partitions in industrial buildings
- Cold-store ceilings — suspended and walk-on panel ceilings
- Roof and overlaid linings hung onto an external steel frame
- Insulating an existing structure via the NuClad StoneWool overlaid detail
- Matching insulated panel doors to complete the cold-store envelope
- International cold-room projects across Africa (Mozambique, Mauritius)

Benefits

- Non-combustible Euroclass A1 StoneWool core — the fire-safe insulated-panel choice
- Very high material service temperature (StoneWool to 760 °C; melting point >1000 °C)
- Interlocking Crocodile Connector joints for fast, vapour-tight, riveted assembly
- Hygienic, washable Chromadek or NuClad profiled steel faces for food-plant use
- Core options (StoneWool / PIR / FRCell EPS) to balance fire, weight and cost
- Envelope designed to the AAAMSA/TPMA cold-store standard (LJ/240, wind per SANS 10160)

Specifications

Core options	StoneWool (basalt mineral wool); PIR or FRCell EPS where a lighter/lower-cost panel is acceptable
StoneWool density grades	70 / 120 / 150 kg/m ³ (acoustic / wall-ceiling / roof-walk-on)
Compressive strength (10% def.)	≥45 kPa (120 wall/ceiling grade); ≥70 kPa (150 roof/walk-on grade)
Thermal conductivity λ (10 °C)	≤0.035 W/m·K (StoneWool core)
Thermal resistance R	2.86 m ² ·K/W at 100 mm StoneWool
Core thicknesses	45 / 50 / 60 / 75 / 100 / 125 / 150 mm
Panel cover width	1145 mm wall / 990 mm roof (IBR / standing-seam)
Steel skins	Chromadek or NuClad profiled cladding; min 0.5 mm coated facing
StoneWool max operating temp	760 °C (material); melting point >1000 °C
Reaction to fire	StoneWool core A1 (non-combustible material); LiteSpan Panel 150 EPS-cored B-s1,d0

Fire & compliance: Reaction-to-fire (how the material behaves, SANS 53501-1 / EN 13501-1): the StoneWool core is Euroclass A1 non-combustible, and Technopol's EPS FRCell core and the LiteSpan Panel 150 (Chromadek + EPS) panel are classified B-s1,d0 — the current, valid claims for this family. Fire-resistance (how long an assembly contains a fire. SANS 10177-2 in FR minutes) is a different property: the StoneWool wall's SANS 10177-2 test (FIRELAB FTC 20/011) is on file but lapsed May 2025 with

