

MegaCool

UPVC-faced EPS composite board — a washable, insulated partition wall in one lightweight panel



Overview

MegaCool is a composite partition and insulated-wall board made by laminating a tough 1 mm white high-density UPVC sheet to one or both faces of a fire-retarded expanded-polystyrene (EPS) core. Faced on both sides, it becomes a self-finished, wipe-clean partition that combines a durable, non-corrosive, high-pressure-washable surface with the thermal insulation and rigidity of the EPS core — so a single board acts as both partition and insulated wall element. The core is standard 15 kg/m³ fire-retarded EPS (20 or 30 kg/m³ available for higher insulation or strength), in thicknesses up to 100 mm, at 1200 mm width and lengths up to 3000 mm. Light, UV-resistant and easy to cut on site, MegaCool suits partitioning and hygienic wash-down environments, and is a proven wall panel for temperature-controlled broiler houses.

Applications

- Durable, washable internal partition walls (primary positioning)
- Broiler / poultry-house wall panels (e.g. MegaCool 75 mm with a SuperCool ceiling)
- Wash-down and hygienic areas in food, agricultural and industrial buildings
- Combined partition-plus-insulation wall element in a single board
- Freestanding double-sided partitions with a finished, washable surface both sides
- Acrylic-plaster / MegaCool wall combination (plastered finish over the board)
- Temperature-controlled and cold-environment interiors

Benefits

- Self-finished UPVC surface that is non-corrosive, UV-resistant and high-pressure washable
- Partition and thermal insulation in one lightweight, easy-to-handle board
- Impact- and abrasion-resistant 1 mm high-density UPVC facing
- Fire-retarded EPS core
- Tongue-and-groove edges with angle/channel fixing for quick, sealed assembly
- Core density and thickness selectable to suit insulation and strength requirements

Specifications

Board construction	1 mm white high-density UPVC laminated to one or both sides of a fire-retarded EPS core
Standard EPS core density	15 kg/m ³ (20 or 30 kg/m ³ on request)
Core thickness	Up to 100 mm max (documented 50 / 60 / 65 / 80 / 100 mm)
Standard width	1200 mm
Length	1900 and 3000 mm (up to 3000 mm)
Facing	White 1 mm high-density UPVC, one or both sides
Edge / fixing	Tongue-and-groove side joints; angle or channel top/bottom fixing
U-value, board only (15 kg/m ³ EPS)	0.75 W/m ² K at 50 mm to 0.37 W/m ² K at 100 mm
R-value, in application	1.68 m ² K/W at 50 mm to 3.00 m ² K/W at 100 mm
Mass (double-sided)	3.4 + (thickness in mm x 0.016) kg/m ²

Fire & compliance: The EPS core is Technopol fire-retarded (FRCel-type) EPS, whose bare-material reaction-to-fire class is B-s1,d0 to SANS 53501-1, and the 1 mm UPVC facing is self-extinguishing (UL 94 V-0); these are reaction-to-fire / surface-flammability ratings for the materials, not fire-resistance (REI) ratings for the assembled board. No whole-board SANS reaction-to-fire or fire-resistance certificate exists for MegaCool, so where a rated partition is required the performance must be established by a project-specific test and the building must satisfy SANS 10400-T (and SANS 10400-XA for thermal). Agreement 2020/609 (LiteCore only), the Terraco A2-s1,d0 mineral-wool class, and Technopol's ISO 9001/14001/45001 registrations (expired) do not apply to and must not be claimed for MegaCool.