Panel Systems

Reaction to fire classification A1 EN13501-1:2019

October 2022

MultiLiner A1

Achieves A1 classification to EN13501-1:2019

MultiLiner A1 is a versatile, weather resistant panel suitable for use in insulating and protecting semi-exposed soffits on concrete decks or upstands and parapets in roofing applications.

Fire Protection:

MultiLiner achieves an A1 classification for thicknesses ranging between 36-276mm and is compliant with UK Building Regulations. MultiLiner offers Architects, Specifiers, & Developers an ideal material for use in both new construction projects requiring soffit, upstand, or parapet liners as well as for the replacement of existing non-compliant products.

MultiLiner boards are manufactured by Panel Systems Ltd which is approved to management system ISO 9001:2015. Each panel is produced from a 6mm non-combustible cellulose fibre cement building board, factory laminated to non-combustible rock mineral wool slab.

Applications

Semi-exposed Concrete Soffits
MultiLiner A1 can be used as non-combustible insulated liner boards for the thermal upgrading of semi-exposed concrete decks, in both new build or refurbished buildings. They are used extensively for car parks and other soffit lining applications.

Upstands and Parapets for Roofing
MultiLiner is an ideal material for roof lining applications where a non-combustible upstand or parapet insulation board is required to thermally insulate and protect walls in inverted flat roof systems.The standard thickness for roofing applications is 56mm overall. Other sizes are available upon request.

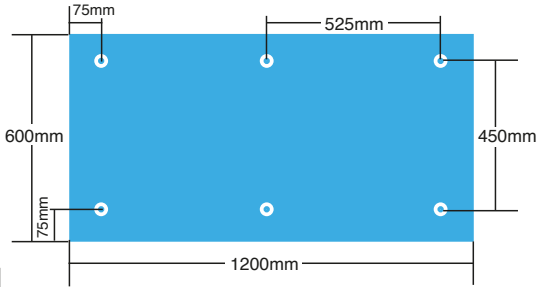
Installation

Semi-Exposed Soffit Applications
For soffit applications, MultiLiner boards should be fixed directly to the concrete using Ejot DDS-Z mechanical fixings together with the DDT 70 washer. Fixings should be at 600mm centres (6 per board) and 75mm in from the board edges. Each fixing should penetrate the concrete by at least 25mm. Pre-drilled holes should be 5mm more than than the fixing length. The MultiLiner boards should be pre-drilled oversize by 2mm. Boards must be staggered in a brick pattern and a small 2mm expansion gap between each board is recommended. If the external perimeter of the soffit results in exposed board edges, these need to be protected with a non-combustible metal flashing or similar.

Handling & Storage

MultiLiner is packed on pallets with limited weather protection. Pallets should always be stored on flat ground and if materials are likely to remain exposed for long periods, then additional protection of the pallet will be required. Boards that have been allowed to get wet should not be used. When boards are removed from the pallet, they should be stored flat and in a dry area. MultiLiner can be cut using normal site cutting tools including circular saws and fine-toothed saws.

Fixings



The fixings should be evenly distributed and must offer a minimum 25mm penetration into a solid substrate. Fixings at board edges must be located more than 50mm and less than 150mm from edges and corners of the board and not overlap board joints. For further details and pricing on mechanical fixings suitable for use with MultiLiner boards, please contact the Panel Systems team.

Upstands and Parapet Applications

For upstand and parapet applications, MultiLiner boards should be mechanically fixed directly to the upstand wall along the top edge. This can be achieved through the board face at maximum 600mm centres, with fixings positioned a minimum 50mm / maximum 150mm from the edge of the board. Mechanical fixings should penetrate the substrate a minimum of 25mm. If the bottom edge of the board is not to be physically retained by the roof deck insulation, an additional row of mechanical fixings will be required. When an uneven surface exists, adhesives may also be used at the contractor's discretion. Finally, a decorative, non-combustible flashing must be fitted along the top edge to minimise moisture penetration behind the boards.

Decoration:

MultiLiner boards can be painted without any special priming, using an alkali-resistant paint or emulsion. Under normal circumstances, two coats of paint give a satisfactory finish.

Environmental:

If the intended application requires a BREEAM rating, MultiLiner is an ideal solution. The material has zero Ozone Depletion Potential (ODP) and zero Global Warming Potential (GWP).

Fact File

Description:
Rock Mineral wool faced with 6mm cellulose fibre-cement building board

Board Size:
1200 x 600mm nominal

Overall thickness including 6mm facing board:
Upstands: 56mm
Semi-exposed soffits:
126mm,136mm, 166mm
Other thicknesses are available upon request

Reaction to Fire:
MultiLiner is Classified A1 against EN 13501-1 : 2019

Thermal Performance R-Value:
56mm: 1.39 W/mK
126mm: 3.34 W/mK
136mm: 3.62 W/mK
166mm: 4.45 W/mK

Nominal Weights:
56mm: 13.8 kg/m^2
126mm: 21.1 kg/m^2
136mm: 22.6 kg/m^2
166mm: 25.3 kg/m^2

Boards Per Pallet:
56mm: 72 boards (51.8 m^2)
126mm: 32 Boards (23.0 m^2)
136mm: 28 Boards (20.1 m^2)
166mm: 24 Boards (17.3 m^2)

About Panel Systems

Since 1974 Panel Systems has built a reputation as an expert in the manufacture of innovative, bespoke panels for a diverse range of markets. This includes the fabrication of high quality architectural composite panels and cladding for building facades and other applications such as lightweight structures.

The company's two factories, spanning more than 60,000 ft^2, are equipped with the latest technology and state-of-the-art manufacturing equipment, including panel bonding, metal fabrication, hot-wire cutting and CNC machining of board materials.

Located in Sheffield close to the M1, Panel Systems is ideally situated for delivery of product direct to sites throughout the UK and beyond.

Accreditations and Certifications
✓ A1 to EN 13501-1:2019
✓ BS EN ISO 9001:2015
✓ FORS Bronze
✓ Made in Sheffield
✓ Investors in People

Panel Systems

For pricing, or to discuss your requirements in more detail, please call 0114 249 5635 or email: acp@panelsystems.co.uk.
www.panelsystems.co.uk