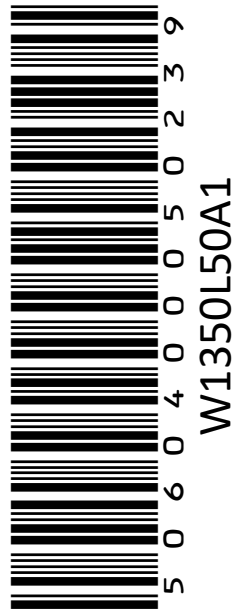


PHOTONWRAP-A1

PHOTONWRAP-A1

- Reflective breathable membrane
- A1 non combustible
- Excellent vapour permeability
- Low emissivity reflective surface
- Specifically designed to enhance thermal performance of external walls
- Roll size 50m x 1.35m



0338
0578

Thermic Technology Ltd, Unit 15 Moorland Gate
Business Park, Cowling Road, Chorley, PR69FE
21

CEDoP_PhotonWrap-A1_VersionNo2_Nov2020
W1350L50A1

BS EN 13859-2-2014

Flexible sheets for underlays for walls

PhotonWrap-A1, 50m x 1.35m

For use in walls of buildings

Reaction to fire: Class A1

Resistance to water penetration: Class W2

Water vapour resistance: Sd 0.019 (0.095 MN.s/g.m)

Tear: MD 208N, XD 302N

Tensile: MD 2865 N/50mm, XD 2195 N/50mm

Elongation: 5%

Dimensional stability: MD -0.07%, XD -0.02%

PHOTONWRAP-A1

PhotonWrap-A1 Fixing Instructions

General

- PhotonWrap-A1 must be installed in accordance with these instructions and should follow Building Regulations and current good building practice.
- PhotonWrap-A1 can be damaged by high winds, prolonged exposure, careless handling or by vandalism and must be covered as soon as practically possible on completion of installation. Any damaged areas should be repaired or replaced before completion.
- PhotonWrap-A1 does not require personal protective equipment to be used.
- Secondary insulation such as PIR and glass wool should be installed as described in manufacturers' literature.
- To reduce the risk of condensation an air and vapour control layer must be used on the warm side of the insulation layer.
- Installation should follow Building Regulations and current good building practice.

Air gaps

- Air in a relatively narrow unventilated cavity bounded by low emissivity surfaces is an excellent insulator.
- PhotonWrap-A1's very low emissivity surfaces allow the optimisation of air gap performance.
- The optimum thermal performance of PhotonWrap-A1 is gained from the use of 20mm air gaps.

Installation

- Unroll PhotonWrap-A1 and fit directly to the face of the construction, reflective surface facing outwards making sure that the lower base timbers/steel members are covered. Ensure that the vertical joints are staggered.
- Temporary fixing: Acrylic Tape (double sided) can be used for temporary fixing prior to the installation of external insulation, battens or cladding brackets.
- Fixing to timber studs/sheathing: Fix with stainless steel nails or staples at max 600mm centres horizontally and 500mm centres vertically. Fix membrane at max 150mm centres at joints and openings. To assist with the subsequent location of the vertical studs clearly mark them on the external surface of the PhotonWrap-A1.
- Fixing to steelwork: Fix with a suitable fixing system such as a 25mm Steel Framing Screw with an EPDM rubber washer at maximum 500mm centres.
- Fixing to masonry: Fix with a suitable anchor fixing system or a masonry nail/screw and EPDM rubber washer. Fixings should be at maximum 500mm centres.
- Fixing to cement particle board: In most cases PhotonWrap-A1 can be temporarily fixed to a CP board with a heavy-duty stainless-steel staple. These should be fixed at 500mm centres vertically and 1m centres horizontally. Alternative fixing of PhotonWrap-A1 can be achieved with a drill tip screw through the CP board and into the metal framing. The head of the screw must have a low-profile flat head to sit flush against the membrane. An EPDM rubber washer should sit between the screw head and the membrane for air sealing purposes. Screw fixings should be spaced at a minimum 1m centres vertically at every stud position.
- Fixing to insulation: Use the fixing specified by the insulation manufacturer. In cladding applications timber battens or metal brackets may also be used to fix the membrane.
- Lap PhotonWrap-A1 100mm horizontally and 150mm vertically and at external corners return PhotonWrap-A1 by 300mm. Laps can be taped using single sided aluminium foil tape, minimum 50mm wide.
- Upper layers should overlap lower layers to shed water away from the structure and below the level of the lowest structural timber/steel member. Ensure that the lowest timber/steel members are protected by PhotonWrap-A1.
- At openings PhotonWrap-A1 should be detailed into the opening return to ensure there is sufficient lap and weathering with the proposed framing.
- At cavity barriers and trays PhotonWrap-A1 should be lapped by at least 100mm horizontally and 150mm vertically.
- Any damage to the PhotonWrap-A1 should be repaired prior to the installation of the external cladding by laying another sheet over the damaged area and sealing it in place, ensuring that water can be shed away from the sheathing.