

LIQUIROOF

Fully supported 4-sided interlocking
PIR OSB3



Liquid waterproofing coatings are typically between 1.25mm to 2mm thick meaning even minor imperfections in the substrate surface can create both alignment issues and stress points on the outer surface coating. LIQUIROOF fully supported boards interlock on all four sides, from top to bottom, to create a strong and solid surface with no raised edges, misalignment or gaps.

Description

Faced with a lightweight 8mm OSB 3 panel on the top side, LIQUIROOF panels are designed for use on old or new boarded structures. The polyurethane rigid foam insulation core provides maximum insulation with minimum panel thickness. The serrated edges on the boards slot together easily to cover large uneven surfaces, and with minimised alignment time are quick to install.

Life expectancy

Providing it has been installed in line with the manufacturer's recommendations, LIQUIROOF is designed to last the life of a building with the board retaining its U-value as well as its structural and acoustic integrity.

LIQUIROOF complies with BS EN 13165:2012+A2:2006


Insulation core: **PUR/PIR rigid foam acc. to EN 13165, class E, aluminium foil on both sides**

Facing: **OSB 3 panel, 8mm thick**

Edge joints: **PUR/PIR rigid foam serrated on all sides, OSB panel with rabbet edges on all sides**

Sizes Available: **1200mm x 1200mm, 2440mm x 1200mm (coverage is 1cm less). Other sizes are available**

Fire rating: **Standard EN 13501-1 Class E, s2, d0 BROOF(t4) (inclusive of C, D and E) dependant on outer surface coating**



LIQUIROOF PIR insulation boards deliver a super-flat surface ideal for liquid and flat roofing systems.

BENEFITS

- NO COATING STRESS POINTS
- NO SURFACE CRUSHING DURING INSTALLATION OR MAINTENANCE
- NO DELAMINATION
- NO VAPOUR ESCAPE AT BOARD EDGES
- COMPATIBLE WITH; LIQUID APPLIED SYSTEMS, FELT AND EPDM
- THERMAL CONDUCTIVITY:0.022W/MK

Installation Guide

Setting out

Substructures must be secure before installation to guard against wind uplift along with all preparatory work completed. Whilst LIQUIROOF will accommodate minor imperfections and undulations, significant irregularities in the substrate must be removed before fitting. LIQUIROOF should be installed using staggered offset joints.

Tapered insulation

Tapered insulation panels are manufactured with a fixed gradient of approximately 2% and installed in accordance with a prepared gradient plan. Once fixed, LIQUIROOF is installed on top of the tapered panel for a flat and solid finish. Fit LIQUIROOF at offsets with regards to the gradient board so that there are no continuous cross joints. Tapered insulation panels are available in four different thickness grades.

Vapour barriers

These should be selected according to the building use.

Expansion

In accordance with DIN CEN/TR 12872:2015 the OSB board offers as a guideline for dimensional changes: 0,02% in length and 0,03% in width per 1% change in moisture content. As per EN 318 the OSB may have a moisture content of between 3% and 12%.

Fixing

Guardian thermally broken fixing tubes should be used to achieve optimum performance and pull out resistance. No specialist tools are required when installing LIQUIROOF P OSB.

Mechanically Fixed

Depending on the substrate and geographical location additional fixing may be required. Boards should be laid out in a staggered formation and fixed using Guardian R45 thermally broken fixing tubes. The length of tube and fixing is determined by the insulation thickness and type of substrate.

Bonded Fixing

Bonding to the roof structure (with additional mechanical fixing or superimposed load) is permissible for aluminium-coated insulating materials subject to adherence of the adhesive manufacturer's guidelines and data sheets. LIQUIROOF has been tested to European Standard EN 1607, which determines the tensile strength of a product perpendicular to its face and has achieved a rating TR50. The amount of adhesive and number of adhesive beads is dependent on wind uplift calculation and position of insulating panels on the roof.

Bonding to trapezoidal sheets

When bonding to a profiled roof structure, the strips of adhesive tape may only be applied to the high beading of the sheet to ensure a tight bond. The substrate should always be tested for suitability prior to bonding. Additional mechanical fixing is advised.

Loosely installed with superimposed load

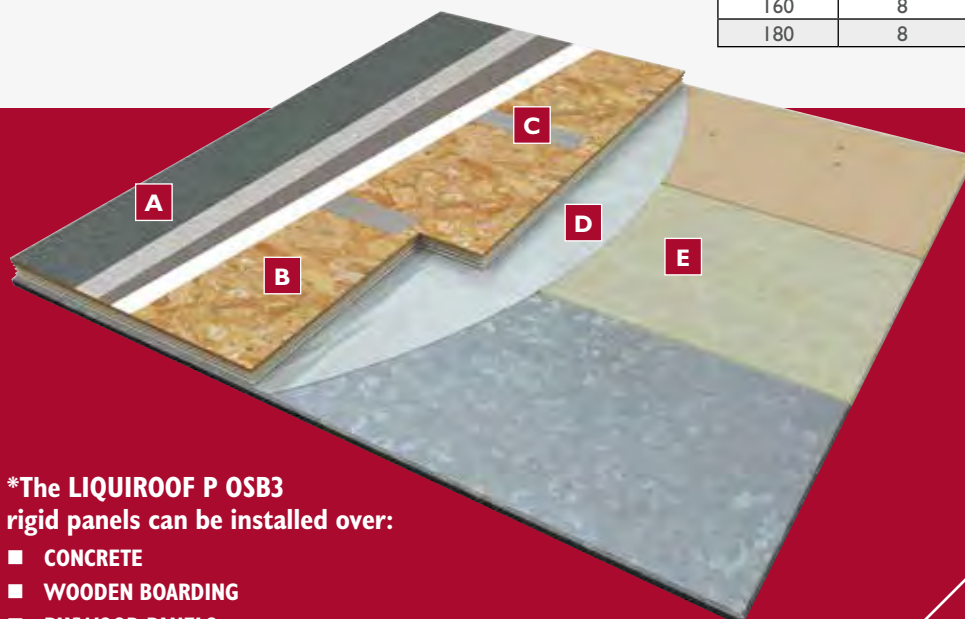
Loose fixing must be used in conjunction with superimposed load or mechanical attachment. Hot bonding with bitumen is not suitable for products with aluminium coating.

Loose installation

Loose installation with superimposed load of LIQUIROOF insulation board is only permissible if the necessary waterproofing and superimposed load are applied over the full surface immediately after installation. Attention must be paid to sufficient fixing of the roof edges. It is recommended that during the construction phase loosely installed panels are secured in position using appropriate PUR adhesives or mechanical fixings.

Panel Thickness and U-Value ratings

Board Thickness (mm)		TCL	U-Value	Guardian Fixing
PUR/PIR	OSB 3 Panel	PUR/PIR	(W/(m²K))	Tube Length (mm)
30	8	0.22	0.46	20
60	8	0.22	0.34	40
70	8	0.22	0.30	60
80	8	0.22	0.26	60
100	8	0.22	0.21	90
120	8	0.22	0.18	100
140	8	0.22	0.15	120
160	8	0.22	0.13	150
180	8	0.22	0.12	150



*The LIQUIROOF P OSB3 rigid panels can be installed over:

- CONCRETE
- WOODEN BOARDING
- PLYWOOD PANELS
- STEEL PROFILE SHEETS
- EXISTING ROOF SPACES AS A RECOVERY BOARD

- A** WATERPROOFING OPTION
- B** LIQUIROOF P OSB 3 INTERLOCKING BOARD
- C** TAPED JOINTS
- D** VAPOUR CONTROL LAYER
- E** SUBSTRATE*

About SIG Design & Technology

SIG Design & Technology is a part of SIG Roofing, a leading division of SIG plc, a FTSE listed company and the UK's market leading specialist supplier to professionals in the building and construction industry.

SIG Design & Technology has put together an 8-step guide to identify the challenges and ensure that a roof's design meets a building's requirements.

Called *#PerfectRoof*, the eight steps follow the process from product selection and design expertise through to full guarantees and planned maintenance. Its know-how is just part of the service that is provided absolutely free to customers.



Take the risk out of roof design...

■ The right products for your project to meet requirements for:

- Carbon capture
- Insulation
- Roof longevity
- Energy generation
- Design covered by our PI insurance
- Genuine choice of waterproofing
- Part of a FTSE 250 company



SIG Design & Technology
Mannheim House, Gelders Hall Road,
Shepshed, Leicestershire LE12 9NH
Tel: 01509 505714
www.sigdandt.co.uk