HUNTON

HUNTON BITROC™

Weather resistant sheathing

HUNTON SARKET

PRODUCTION

The manufacturing process for Bitroc has extremely low embodied energy, requiring far less energy to produce than any other mainstream sheathing and insulation material.

ENVIRONMENT

Hunton Bitroc high performance sheathing boards are manufactured from 100 % sawmill waste. The product is unique in the fact that Hunton coat the board with a combination of bitumen and recycled newspaper to form a moisture resistant skin. Bitroc does not contain any added formaldehyde.

INSULATION

Bitroc improves insulation performance and reduces heating demand. It also plays a major part in the reduction of household CO2 emissions.

PROPERTIES

	15 mm Bitroc
Size tolerance – thickness	**± 0.7 mm**
Size tolerance – length / width	**± 3, ± 2 mm**
Standard size	**2400 x 1200 mm**
Weight	**4 kg/m²**
Density Kg/m³	**280 (+20-10)**
Thermal Conductivity W/mK	**0.05**
Test racking resistance kN / m 3.35 mm nails at 75 / 150 mm cc 3 mm nails at 50 / 150 mm cc	 **1.58** **N/A**

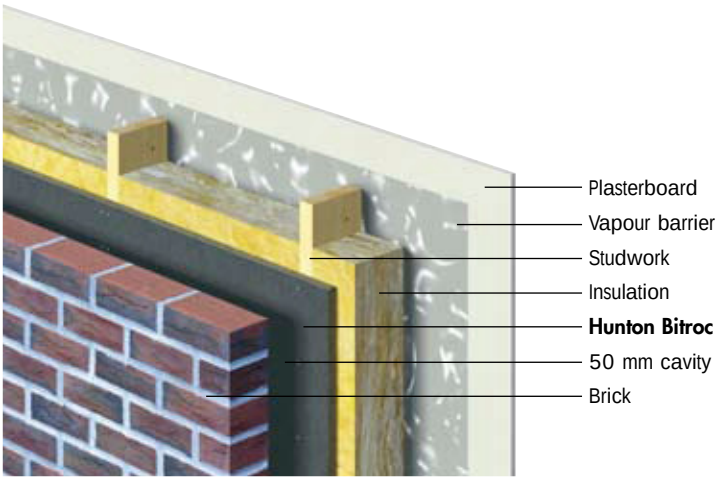
Bitroc

Hunton Bitroc is a high performance sheathing board with excellent racking, weather resistance and insulation properties. With BBA and NHBC approval, Bitroc comfortably meets the standards for timber and steel frame construction.

PRODUCTS
With an impressive thermal conductivity value (k) of 0.05 W/mK, Bitroc delivers insulation performance up to SIX TIMES better than conventional sheathing boards. The use of Bitroc as sheathing allows for reduction of wall insulation depth and reduces the requirement for high density and more costly insulation materials.

PERFORMANCE
Bitroc´s performance is further enhanced by its ability to resist racking, water ingress and its ability to breathe. Also Bitroc´s properties prevents cold bridging through the timber or metal stud-work. Bitroc is lightweight, easy to handle and cut.

Hunton Bitroc does not require a breather membrane, except in extreme situations.

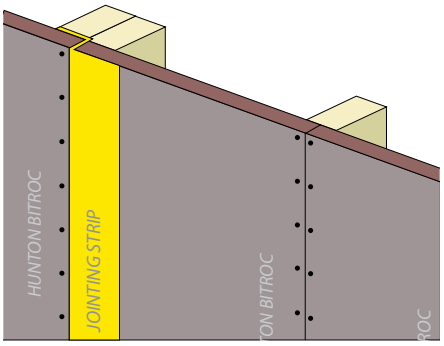


INSTALLATION AND FIXING

Hunton Bitroc is included in the list of materials suitable for timber frame sheathing, as described in BS5268.

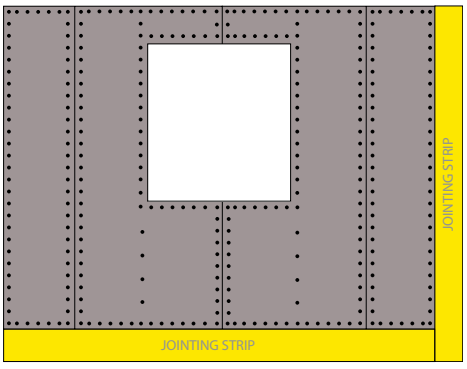
For racking, timber studs should be 38mm or greater, stud centres should not exceed 600mm and the boards fixed using 50x2.9mm nails as a minimum.

To satisfy NHBC approval, joints between Bitroc boards should be made over a frame stud to prevent direct passage of moisture into the structure. Panel to panel joints should also be protected by use of a strip of breather membrane fixed to one edge of the panel and lapped over the face of the adjacent panel. Alternatively, a gun applied mastic sealant is acceptable to seal the panel joint. Vertical battens which form part of a cladding system can also be fixed tightly over the panel joints.



Typical wall showing panel joints with breather membrane flap and board joint over a stud.

Hunton Bitroc can also be used as a sheathing for lightweight steel framing and be fixed using dry wall or self tapping screws. Fixing centres should be specified by the structural engineer; however, 150mm on the perimeter and 300mm internally is recommended.



Typical wall panel nailing pattern

RACKING
On individual projects, spacing of the nails should be specified by the panel designer. Wall racking tests have been carried out by the University of Surrey and the BRE on typical wall panels using Bitroc.

CLIMATE
Like other wood based sheathing boards, Bitroc is hygroscopic, in that it takes on the moisture content of the immediate atmosphere. Therefore, Bitroc is very breathable, many times more permeable than other sheathing materials. Bitroc allows any moisture that gets through the internal vapour barrier into the wall structure, to breathe out through the wall into the ventilated cavity.

STORAGE AND HANDLING
Bitroc is delivered in pallets which have protective wrapping to keep the materials dry in transit. Bitroc should be stored in a dry area on a level base. Any bearers placed under the pallet to assist with fork lift handling should be positioned to prevent distortion of the boards.

FIRE
When tested in accordance with BS476, Bitroc will achieve a Class 4 surface spread of flame rating. Within the design, as is required with any non-Class 0 or 1 sheathing, it is necessary to include cavity barriers or fire-stops suitable for purpose.

THERMAL CONDUCTIVITY
Hunton Bitroc has a thermal conductivity of 0.05 W/mK, which is SIX TIMES greater than most conventional timber frame sheathing products.

BITROC	STUD SIZE	INSULATION	U-VALUE W/m²K
15	38 x 140	0.038	0.28
15	38 x 140	0.037	0.27

Sample U-Values shown relate to brick clad timber frame walls incorporating 15% timber bridging. For copies of the full U-Value calculations or specific project U-Value calculations please contact Hunton Fiber UK.

Hunton Fiber AS, Norway is the leading manufacturer of bitumen impregnated fibreboards.

The company manufactures high performance sheathing products, Bitroc 15 for walls; Sarket for roofs;
Silencio 36 and Silencio Thermo for acoustic and underfloor heating systems.

Bitroc was developed in Norway in close co-operation with the Norwegian Building Research Institute (NBI)- a member of the European Union of Agrement (UEAtc) and the European Organisation for Technical Approvals (EOTA).

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Visit www.hunton.no/eng to find your local distributor and sales office.