

SPANO DURÉLIS POPULAIR

High Performance diffusion open external sheathing board, combining high racking strength, with excellent vapour permeability

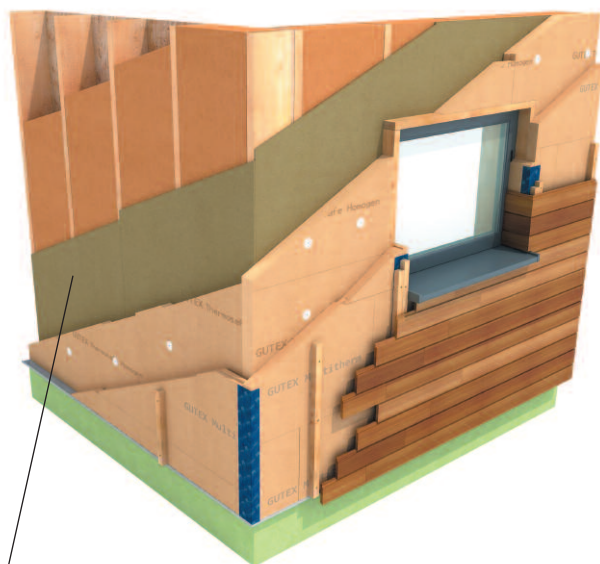


DURÉLIS POPULAIR board used as diffusion open racking board on site

DURÉLIS POPULAIR is a 12mm, 2400 x 1200mm high density chipboard with an unsanded, hard surface, developed specifically for the timber frame industry as a more diffusion open alternative to conventional plywood or OSB.

Installation:

During and especially after installation the boards must be protected from any direct contact with water with suitable breathable membranes, such as pro clima Solitex WA or they may be immediately protected with a suitable water resistant layer (e.g. Gutex wood fibreboards shown below). They must be stacked flat, on a pallet or using a sufficient number of cross members. Boards should not be stored vertically, unless ground contact can be avoided.



DURÉLIS POPULAIR diffusion open racking board used on Eco Passive Wall



Description:

- DURÉLIS POPULAIR combines the benefits of high racking strength, with a diffusion open construction, and assists in the design of a healthy living environment and durable construction
- With a μ value of only 50, DURÉLIS POPULAIR is over 3 times more vapour diffusion open, in comparison to conventional OSB 3 sheathing
- The board is suitable for external applications, even when exposed to high humidity, often experienced on building sites, with minimal expansion and swelling in such conditions - boards should be protected against direct exposure to rain on site
- DURÉLIS POPULAIR is classified as a structural board which is suitable for use in humid conditions (P5) equivalent to OSB3
- DURÉLIS POPULAIR is suitable for use in service class 2 (restrictions in temperature and ambient humidity) and can be used in biological hazard classes 1 and 2 of EN 335-3
- DURÉLIS POPULAIR is also suitable for load-bearing applications in humid conditions (Service Class 2 to EN 1995-1-1)
- The board is easy to saw and screw into, and has a low formaldehyde emission (E1 class)
- Larger board dimensions are available on request up to 2620 x 6350mm
- Boards which are tongued & grooved on all 4 sides are available on request

Technical Characteristics:

To confirm the exceptional durability of the boards, DURÉLIS POPULAIR meets the specifications of EN 312, P5, option 1, cyclic test, in which the board is immersed in water, frozen and finally dried. This cycle is repeated 3 times, after which the test specimens are tested for swelling and internal bond strength. The board is CE marked and production quality is checked daily by SPANOGROUP's in house quality control laboratory. DURÉLIS POPULAIR is manufactured to the highest quality standards to comply with ISO 9001. Whether designing a diffusion open, breathing construction or a conventional timber frame, DURÉLIS POPULAIR provides the optimum combination of high racking strength and optimum durability. **For a nailed DURÉLIS POPULAIR board-to-timber joint, the characteristic lateral load-carrying capacity per nail for a 2,8 x 51 mm diameter nail * is 1117 N.**

| Properties | Test method | Unit | OSB/3 | | | P5 (DURÉLIS/POPULAIR*) | |
|------------------------------------|--|-------------------|---------------------------|---------------------------------------|----------------------------|------------------------|---------------------------------------|
| | | | Thickness (mm) 6 to 10 | Thickness (mm) >10 and >18 | Thickness (mm) 18 to 25 | Thickness (mm) 12 | |
| Mechanical Resistance | Bending strength length | EN 310 | N/mm ² | 22.0 | 20.0 | 18.0 | 18.0 |
| | Bending strength width | EN 310 | N/mm ² | 11.0 | 10.0 | 8.0 | 18.0 |
| | Modulus of elasticity length | EN 310 | N/mm ² | 3500 | 3500 | 3500 | 2550 |
| | Modulus of elasticity width | EN 310 | N/mm ² | 1400 | 1400 | 1400 | 2550 |
| | Internal bond | EN 319 | N/mm ² | 0.34 | 0.32 | 0.30 | 0.45 |
| Durability on exposure to moisture | Thickness swelling after 24 hours | EN 317 | % | 15 | 15.0 | 15.0 | 11.0 |
| | Internal bond after cyclic test | EN 321 | N/mm ² | 0.18 | 0.15 | 0.13 | 0.25 |
| | EN321 - option 1 | | | | | | |
| | Swelling after cyclic test | EN 321 | % | - | - | - | 11 |
| EN321 - option 1 | | | | | | | |
| Physical construction properties | Formaldehyde emissions | EN 120 | g/100 g | E1: <8 | | | E1: <8 |
| | Fire reaction classification | EN 13501-1 | - | D-s2,d0 D _n -s1 | | | D-s2,d0 D _n -s1 |
| | Vapour resistance 12mm | EN 13986 | MNs/g | 9.8 | | | 3.06 |
| | Diffusion resistance factor | EN 13986 | μ | 160 | | | 50 |
| | Airborne sound insulation | EN 13986 | dB | 27.4 (18 mm) | | | 27.4 (18 mm) |
| | ¹ (600 kg/m ³ 1-3 kHz) | | | | | | |
| | Sound absorption coefficient | EN 13986 | - | 250-500Hz: 0.10 1000-2000 Hz: 0.25 | | | 250-500Hz: 0.10 1000-2000 Hz: 0.25 |
| | Thermal conductivity | EN 13986 | W/mK | 0.13 | | | 0.13 |
| Density test | EN 123 | Kg/m ³ | 650 | | | 720 | |

* using annularly ringed shank nails with tensile strength of 700 N/mm²; and solid timber of strength class C18 to EN 338.

DURÉLIS POPULAIR is available in a range of alternative dimensions & thicknesses.

SPANOGROUP produce a wide range of wood based building products. *Please contact Ecological for more details.*

SPANOGROUP and the environment:

SPANOGROUP the manufacturers of DURÉLIS POPULAIR use up to 80% recycled wood for the production of its structural construction panels. All wood for production is sourced from FSC or PEFC certified forests. During production wood is crushed and thoroughly purified, after which high quality construction panels are manufactured. Wood which is too heavily contaminated is separated and burnt in a bio-power station to produce energy for powering production. The goal of all these initiatives is to achieve CO₂ neutral production by 2015.



Installation:

When installing DURÉLIS POPULAIR boards, a 4mm expansion gap should be left around the edges of the board. Like all wood based boards, they will expand/shrink under variable humidity conditions, albeit to a lesser extent compared to Standard E1 boards. The board may be installed using either screws, nails or staples. Nails or screws should be galvanised, stainless steel or have similarly durable properties. These include wire nails, clout nails, annular ring shank nails and proprietary gun driven nails with a minimum diameter of 2.8mm and a minimum length of 50mm.

The type, size and spacing of fixings should be confirmed by the panel designer. The perimeter nail spacing should not exceed 150mm, but the spacing of the nails on intermediate studs can usually be increased to 300mm. The minimum recommended edge nailing distance is 8mm. It is recommended that boards are fixed in a consistent pattern working outwards from the centre of the board. DURÉLIS POPULAIR is suitable for sheathing timber frame wall panels with stud framing not less than 38mm in width and at a maximum of 610mm centres. Suitable sawing, milling and drilling tools should always be used.

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