

Press Release

Screen Nature from Mermet, a crucial factor in obtaining LEED Gold certification in Barcelona

Barcelona city centre is bisected by the Avinguda Diagonal (Diagonal Avenue), around which are clustered some of the leading examples of contemporary architecture.

Located in a strategic area close to multiple prestigious sites, the architects behind this project were faced with a major challenge. This building on the edge of the district of Poble Nou, the head office location for the international law firm Cuatrecasas, was duty bound to obtain Gold certification under the LEED programme (Leadership in Energy and Environmental Design). This certificate is the international benchmark similar to the French HQE for the construction of sustainable and high-performance buildings.

With the dual objective of **maintaining privacy, guaranteeing effective screening from the sun and achieving the right quality of light** for the administrative functions of the building, the **Screen Nature fabric from Mermet**, the market leader in the design of technical solar protection fabrics, played a central role in both the technical and environmental domain.

A high-profile environmental project

Historically an industrial district, Poble Nou was fully transformed for the 1992 Olympics to connect the city with its beaches. Today it represents the renewal of the entire city.

Located on the Avinguda Diagonal where the Barcelona of the 21st century begins, with its parks, shopping centres, artists' studios and night life, the Cuatrecasas building could be nothing other than exemplary.

With the objective of achieving **energy savings of up to 30%** compared to traditional high-rise buildings, the firm GCA Architects designed a 28,000m² area accommodating some 1,000 people that stands out for its:

- Pure and minimalist glass facades that fully meet the architectural criteria of the district;
- Two 10-floor and 17-floor towers, one of which is cantilevered to create a 7th floor green terrace, reaching a height of up to 72 metres;
- Three-floor glass atrium linking the towers and enabling natural light to penetrate into the building.

*"...We needed to obtain **LEED Gold certification**: the materials selected had to have zero or low environmental impact. Source, composition... the Screen Nature fabric from Mermet met all the environmental and technical specifications in terms of openness factor, letting natural light into the building..."*

The concept was developed around a series of layers providing protection and regulating light, via:

- The exterior cladding that filters sunlight, consisting of a uniform double skin of modular construction composed of extruded aluminium battens and uprights;
- A high-reflectivity glass curtain wall which, in order to maintain privacy on the first 7 floors, incorporates an opaque lower third and greater visibility in the upper two-thirds, before receding to provide a clearer view over the city and the sea;
- Interior fabrics: **8,000m² of the Screen Nature fabric, colour Bronze 1134, giving a total of some 1,500 blinds installed.**

The perception of light and optical and thermal comfort is different from one person to the next, so our main challenge was to find a solution that satisfied all the building's occupants.

Installing an indoor blind that everyone is able to adjust to their own taste gave us much more flexibility. From the aesthetic point of view, the extensive range of colours and fabrics made it easier to integrate the screens within the ambiance we were seeking to create..." Juan Velasco Garcia de Sierra – GCA Architects

Screen Nature – the high environmental quality fabric with 0% fossil fuel

Free of PVC, halogens, polyester... **the mineral composition of the Screen Nature fabric has minimal environmental impact.** Incombustible and free of smoke emissions, it is rated M0 (NFP 92 503), Euroclass A2-s1-d0, F0, meeting all the health & safety requirements. This fabric with **excellent transparency** offers multiple benefits:

- Very **high glare control**: up to 95 % (VT = 5%) of sunlight is filtered out, offering comfort class 3 (good effect) under the EN 14501 standard;
- **Optimum thermal comfort** with up to 82% of the solar energy reflected back (gtot = 0.18 / glazing g = 0.32 and U = 1.1)
- Dimensional stability, durability (10,000 cycles, class 3 under NF EN 13120) and mechanical resistance ensuring flatness is maintained even in large dimensions.

This elegant and very thin fabric, ideal for blinds in smaller spaces, is available in 8 colours and 2 widths of 180cm and 240cm.

With its Screen Nature fabric, a genuinely ecological fabric, the French company has once again demonstrated its culture of excellence: by meeting ever more demanding standards, Mermet enables buildings to reduce their carbon footprint.