



Heraklith.



WOOD WOOL BOARD USED IN AN URBANSCAPE GREEN ROOF SYSTEM



GREEN ROOF

Location: Oosterhout, the Netherlands, 2013

Product(s) used: Urbanscape green roof system with a special long-lasting drainage system made of Heraklith wood wool (Agro board)

Building: Office building at Knauf Insulation Oosterhout plant (NL)

Client: Knauf Insulation Netherlands

“Since we installed the green roof on top of our office building in Oosterhout, we have observed more stable office temperatures even during warm days - which our employees notice and appreciate. Moreover, the green roof doesn't require any special maintenance for the plants to grow throughout the year. Plus, it looks nice!”

– Jeroen Verweij, Managing Director Knauf Insulation Netherlands

Challenge:

In 2013, the management at the Knauf Insulation plant in Oosterhout set out to create an environmentally friendly “green roof” system on one of its office buildings. To do so, they needed to come up with a design that would be strong enough to walk on yet demonstrate superior drainage performance and durability. It was also important to use a natural material in the drainage layer.

Applications such as these require that the products used in their construction demonstrate both high resistance to physical damage and eco-friendliness in their manufacture.

Solution:



DURABLE



FIRE SAFE



ACOUSTIC



THERMAL



ECO-FRIENDLY

The high impact resistance of wood wool insulation surfaces and their ability to protect against physical damage renders them a natural choice for “green roof” applications such as those described here - especially given the exposure to the elements that they experience over the life of the application. And the eco-friendly attention paid to the manufacture of Heraklith wood wool panels, using only certified wood that originates in production forests, renders them entirely compatible with the ultimate environmental goal of any “green” design.





To meet this particular challenge, the project designers used Urbanscape - an innovative, lightweight, easy-to-install system with high water retention capacity that is designed specifically for green roofs on buildings in urban areas. The system consists of a root membrane, a drainage system, a unique rock mineral wool substrate, and a vegetation layer. In this case, the system also employed open-structured Heraklith Wood Wool Agro board adapted with special grooves to provide fast draining during extreme storm events.

The Urbanscape system 8-10 times lighter than other green roof substrates and can hold up to 3-4 times more water per unit volume. It also provides for an irrigation system and excellent water distribution between the vegetation layer and the Urbanscape green roll substrate, which saves water relative to sprinkler systems that irrigate on top of the vegetation. In addition, it exhibits high thermal and acoustic performance and high fire resistance - as confirmed by its Euroclass A1 rating, meaning that it will not contribute in any stage of a fire, even if the fire is fully developed.



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