

Nexclay

Expanded Clay



Natural, Light and Resistant

Nexclay expanded clay is a natural, ecological, durable, fireproof and inert product, it does not decompose or rot, and it is light and capable of storing a certain amount of moisture, which it slowly releases.

Nexclay is being increasingly used in landscaping projects to create the necessary conditions for proper plant development and as a decorative element due to its colour and shape.



Eco-label based on
ISO 14024 standard –
Type I environmental
certifications



Terraces and Green Roofs

The application of Nexclay expanded clay on green roofs and landscaped terraces promotes increased biodiversity by providing oxygen production and absorbing atmospheric pollution, thus contributing to a more sustainable ecosystem.

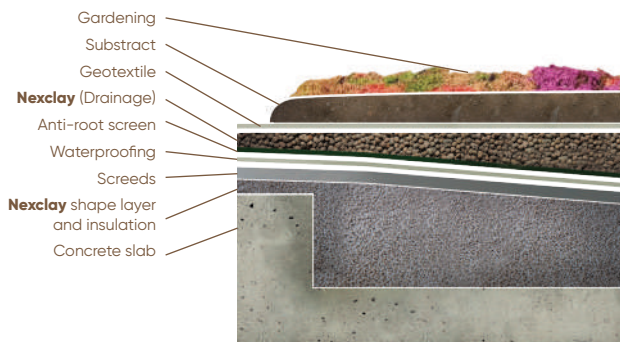
Nexclay is used in insulation and drainage layers on green roofs. Due to its properties, it is used in the **composition of technical cultivation substrates**. This 100% natural product does not overload the structure, helps regulate humidity and improves the thermal and acoustic efficiency of buildings, which allows a reduction in energy consumption. It also offers natural protection to the system and **increases the useful life of the materials used in waterproofing and insulation**.

Drainage is an important element in the preservation and **durability of green roofs and gardens**. Nexclay allows rapid drainage of excess water, due to the small spaces between the clay balls, preventing water from accumulating in the substrate.



Extensive Green Roofs

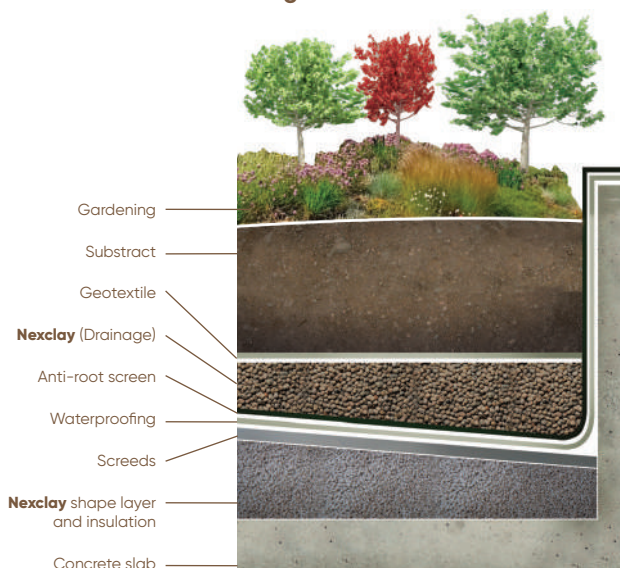
Recommended for non-accessible areas, normally on the top of buildings. With a thin layer of substrate, they are designed for minimal maintenance.



Maia Fórum

Intensive Green Roofs

Recommended for accessible areas, for example at the ground floor level, over the basement roof. Require greater thicknesses of substrate and regular maintenance.



Emporium Building, Porto

Urban Gardens

The practice of urban agriculture has become an increasingly common phenomenon, especially by people who want to have a healthier diet, with greater control over what they eat, but also as a decorative element in spaces, giving them a “new life” and functionality.

An urban garden is a space (for example, a balcony, a terrace or a garden) intended for the cultivation of plants, vegetables, fruit trees or other types of vegetation. Also, as their name indicates, they are orchards located in cities or urban areas.

Essential in the cultivation of urban gardens, both domestic and collective, Nexclay expanded clay is intended to create the necessary conditions for the correct development of plants.

In horticulture/floriculture, Nexclay expanded clay should be used in the **draining layer** placed at the bottom of the vase or pot, and **mixed with the substrate** to make it lighter, more aerated and better drained, thus favoring better oxygenation of the roots.

Application



1 Fill the background with a layer of Nexclay.



2 Place a geotextile filter over the entire surface and fill with growing substrate suitable for the chosen vegetation.

Nexclay allows rapid drainage of excess water, due to the small spaces between the clay balls, preventing water from accumulating in the substrate. To avoid the migration of fine particles from the substrate to the drainage bed, it is advisable to use a **geotextile filter**.

Both in urban gardens and on intensive or extensive green roofs, the largest granulometries should be used, Nexclay 3-8 and Nexclay 8-16.

Hydroponics

Nexclay is pH neutral, is not compact and is reusable, making the product highly recommended and good for the environment. Nexclay expanded clay is used as a **direct replacement for soil**, mainly in hydroculture and hydroponic systems.

Nexclay expanded clay allows the system to be **stable in form and structure**, while allowing **excess liquid to be absorbed**.

Hydroponic cultivation with Nexclay expanded clay is what is called a closed system. Expanded clay is inert, so the plants' nutrition depends on providing a nutritional solution.

Nexclay, also supports plants, since its regular shape results in better aeration and lower moisture retention. Another great advantage of Nexclay expanded clay in this system, is that it is very light.



Green Roofs

Technical Guide for design, construction and maintenance

Green roofs bring numerous **advantages** to the city, the building and the user:

- **flood peak damping**
- **heat island reduction**
- **waterproofing protection**
- **increased thermal and acoustic insulation**
- **improving air quality**
- **property appreciation and better quality of life**

The expanded clay we produce in Oliveira do Bairro, **Nexclay**, is a fundamental component of these living roofs, and also urban gardens, in the drainage layer and in the substrate that allows a substantial part of the rainwater to be absorbed and returned to nature



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Cultivation substrate

The cultivation substrate is a technical substrate, other than soil, which constitutes the **main support** element for the growth of vegetation on green roofs.

The substrate must allow **good penetration and development of the roots** and underground organs of the plants. It must also have all the essential basic physical, chemical and biological properties, especially a **stable structure**. It must be able to retain and make water available to the plants, and allow excess water to **drain away to the drainage layer**. The substrate must be able to contain a sufficient **volume of air to aerate the plant roots**, even when it is saturated with water.

A substrate should never contain fine particles (silt and clay) in quantities that could compromise the drainage of the green roof. Finally, a substrate must guarantee a uniform value of its weight when saturated with water.



50 liter bags



Bigbag of 1,5 m³



Bigbag of 3,0 m³



Bulk

Supply

Located in the center of Portugal, next to Aveiro, it has easy access guaranteed by a good road network. It has the proximity of the port of Aveiro, which guarantees the shipment of large quantities of expanded clay to the whole world by sea.

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