Laterlite Agri

Incombustible
Euroclasse A1

ANAB
PRODOTTO BIOEDILIZIA
CERTIFICATO PER LA
Certificato n° EDIL 2009-002
Istituto per la Certificazione Etica e Ambientale

ECO CONSTRUCTION

A SPECIAL pH NEUTRAL LIGHTWEIGHT, ROBUST, NATURAL, INERT INSULATING AGGREGATE

FOR GREEN ROOFS, LANDSCAPING, HORTICULTURE, FLORICULTURE, AND HYDROCULTURE

Laterlite Agri is a lightweight expanded clay aggregate optimised to give excellent properties for use in contact with plants. It is made by expanding special natural clays at high temperature (1200°C) and is supplied either as granules (expanded clay pebbles or grow rocks) in a range of sizes or as a crushed version.

CHARACTERISTICS

Neutral pH and chemically inert

Laterlite Agri is specifically formulated to be chemically inert with a neutral pH, and is therefore highly compatible with all types of plants and crops.

Air and water reservoir

Its high total porosity (approx. l'85% by volume) gives very good root ventilation and oxygenation to plants, whilst its high hydric retention (approx. 30%) makes it a valuable humidity reservoir: water is stored in the internal porosity of the clay granules and is slowly released to the plants.

Excellent draining capacity

Its dense network of intergranular voids of high drainage capacity prevents water from stagnating.

Lightweight

Its low density (approx. 330 kg/m^3) is particularly appreciated in green roof systems and roof gardens because it reduces loading on the structure, and is widely used to the preparation of substrates to improve their physical characteristics.

Mineral, rotproof, and non-combustible

As a 100% mineral product it will not rot, cannot be attacked by parasites (fungus, rodents, insects, etc.), is not conducive to the spread of plant diseases, is completely non-combustible (Euroclass fire rating – A1), fire-resistant, and safe.

Stable and durable

It is dimensionally stable and non-deformable. It Is not adversely affected by freeze/thaw cycles, is resistant to acids and bases, and retains its properties unaltered over time.

Insulating characteristics

Its low thermal conductivity (lambda [λ] 0.09 W/mK) reduces sudden temperature changes in the substrate and increases the thermal resistance of green roof systems.

A natural and certified product

The natural origin of Laterlite Agri, combined with its manufacturing process, which respects the environment, make it a highly sustainable product. It is also certified for use in sustainable construction by ANAB-ICEA, the Italian Accreditation Institute.

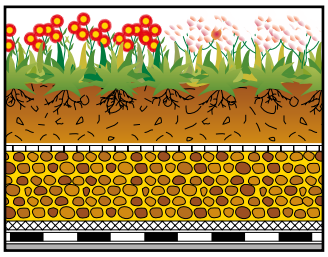
TECHNICAL CHARACTERISTICS

	Crushed		Granular	
Denomination	2/4 FRT	2/8 FRT	3/8	8/20
Density in kg/m^3 (approx.)	350	330	380	350
Total porosity	ca. 86%			
Speed of infiltration (mm/min)	42	157	200	> 500
Electrical Conductivity (mS/m)	25	21	8	7
Water volume at pF1 (%V/V)	21	18	13	10
pH	6 - 7			
Package: bags each of 50 litres. on non-returnable wooden pallets. 65 bags/pall. - 3,25 m^3/pall.;				

Refer to the Technical Data Sheet and the Safety Information Sheet.

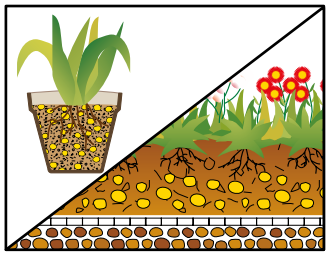
APPLICATIONS

Drainage and moisture retention



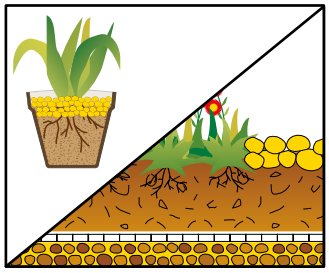
Laterlite Agri is ideal as a lightweight draining layer in roof gardens and green roofs (both extensive and intensive), tubs, planters, vases, or in natural soil. It prevents water stagnation and acts as a valuable water reserve for plants, without increasing the weight of the structure. Laterlite Agri is used by placing a layer of the material, in the desired grain size, of variable thickness (not less than 5 cm), below the growing medium on a roof, in a container, or in a planting pit.

Growth substrate



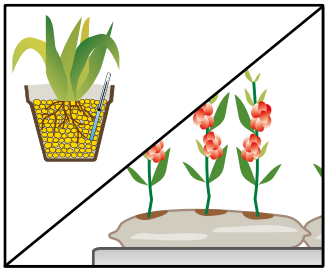
Laterlite Agri can be mixed with the other components of a growth substrate (peat, compost, etc.) to improve its physical and chemical properties (humidity control, aeration, dimensional stability, lightness, durability,etc.). It is ideal for any type of cultivation, both domestic and intensive, and particularly in green roof systems. A lightweight substrate can be created in situ by mixing the individual ingredients and adding a percentage of 20% to 40% Laterlite Agri, or a substrate can be supplied pre-mixed ready for use. The characteristics of LaterliteGreen premixed lightweight substrate are optimised for use in green roof systems and roof gardens. It is consigned in big bags or can be pumped from a silo/tanker truck.

For improving garden appearance and mulching



A layer of 3/8 or 8/20 Laterlite Agri (of recommended minimum thickness 10 cm) placed on top of the soil at the bottom of plants will hinder the growth of weeds, minimise loss of humidity from the substrate due to evaporation, reduce plant water stress and summer watering frequency, protect the soil from erosion and sudden temperature changes, and will give the garden a more orderly appearance. It is ideal for use with plants in pots, planters, outdoors, in roof gardens, vegetable gardens, or on green roofs.

Hydroponics and aquaponics



Laterlite Agri is the ideal inert substrate for hydroponic and acquaponic crops, thanks to its standardisable chemical and physical characteristics, its excellent insulating characteristics, which reduce sudden temperature changes, its freedom from phytotoxic substances, and its resistance to crushing. It is suitable for indoor or outdoor domestic use (in pots or in automated systems) and for intensive soilless cultivation in greenhouses, for which the specific product IdroLaterlite in grow-bags (in 33.3 litre bags) can also be used.