

FETDERRA  
INNOVATIVE EARTH PROJECTS AND PRODUCTS

**ENVIRONMENTAL STATEMENT**

At Fetdeterra we promote the use of earth for sustainable, ecological and environmentally friendly construction.

Buildings are the main contributors to greenhouse gas emissions, so our goal is to create more natural materials which release less carbon and are healthier.

This document explains the advantages of using earth as a construction material to combat climate change and create more sustainable architectonic projects. The benefits which earth provides users and the environment are:

## **HEALTH FOR THE USER**

100% natural

It transpires and purifies the air, thereby improving indoor air quality

Earth's high thermal inertia helps it lower the building's energy cost

A passive temperature regulator, it mitigates temperature fluctuations within a space and promotes a more stable temperature, creating greater thermal comfort in building interiors

Regulates relative indoor humidity between 40% and 70%

Absorbs electromagnetic waves

High acoustic insulation capacity, absorbs and muffles sound

Flame-retardant material

Earth does not reflect light or produce glare; it diffuses light and helps maintain the light balance in indoor and outdoor spaces

## **SUSTAINABILITY FOR THE ENVIRONMENT**

It does not contain or release toxins

Unfired

Low CO2 emissions

Low incorporated energy

Low water consumption

No need for coating or additional surface treatment

Recyclable after demolition

It does not generate waste

Circular nature of the material

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**TAPIALBLOCK® - PREFABRICATED EARTH BLOCK**

<b>Trade name</b>	Tapialblock®
<b>Product description</b>	Prefabricated block of raw earth, for the formation of load-bearing and non-load-bearing walls, for interiors and/or exteriors.
<b>Production process</b>	<p>The prefabricated earth block manufacturing process is divided into the following stages, included in the Life Cycle Analysis:</p> <p>Acquisition and preparation of raw materials. The prefabricated earth block manufacturing process begins with the extraction and production of the raw materials.</p> <p>Transport to factory. The raw materials are shipped to the factory by road.</p> <p>Manufacturing. In this stage the earth is prepared, poured into moulds and compacted. The block is then demoulded and cured. Finally, the blocks are stacked on pallets and stored until delivery.</p>

<b>Declaration of environmental parameters</b> The distinct environmental parameters derived from the Life Cycle Analysis for this product category are listed as follows	
<b>Parameters which describe environmental impacts. Global warming</b>	CO2 emissions calculated for the product 0.050 Kg CO2/Kg.  Carbon incorporated in the materials used 0.8 MJ/Kg   0.2 Kw/Kg.  All the raw material is from a radius of less than 100 km.  Unfired and air-dried.
<b>Parameters which describe resource use. Water use</b>	Water consumption is 100 l x m3 of product.
<b>Parameters which described waste categories.</b>	100% of the material is recyclable to manufacture new blocks. It contains no polluting or hazardous components.