

Natural aggregate with pumice stone for
lightweight concrete production, ideal
for floor filling & leveling applications.

MASTER FLOOR

NATURALLY STRONG



A MEMBER OF
HOLCIM GROUP



HERACLES

Description

MASTER FLOOR is a natural, lightweight aggregate based on pumice stone. It contains a mixture of pumice, limestone sand and polypropylene fibers. It is available bagged (as a dry material) and bulk via concrete mixer truck.

Applications

As a semi - finished product, MASTER FLOOR, when mixed with cement and water, produces lightweight mortar ("kisserodema" translated as pumice-concrete), ideal for floor / terraces filling & leveling (replacing both other filling materials as well as screed) with various applications in construction such as:















- **Floor filling where tiles, granite slabs etc. are to be laid**
- **Underpass for roof coating (runoff slopes, insulation)**

Thanks to pumice stone and its properties that follow, MASTER FLOOR ensures **faster completion of work and significant cost savings.**



Instructions

MASTER FLOOR is mixed with cement and water on site, either in a concrete mixer or in a plaster producing mixer/pump.

PROPOSED MIXED DESIGN	MASTER FLOOR 20lt 	CEMENT 25kg 	WATER 	VOLUME 
FLOOR - TERRACE FILLING	x6 	+ x1 	+  30 lt =	120 lt
PROPOSED MIXED DESIGN	MASTER FLOOR 1000lt 	CEMENT 50kg 	WATER 	VOLUME 
FLOOR - TERRACE FILLING	x1 	+ x4 	+  240 lt =	1 m ³

The material is pumpable and laid by the usual techniques.

Useful information

Excessive amount of water results in **demixing, low strengths** and **disintegration** of the surface.

The **substrate** must be solid, free of loose materials, dust, grease or other foreign materials. The substrate's surface must be well wetted.

Before applying tiles, it is recommended that the laid material is well dried.

The use of aerating agent causes further reduction to the density and increases surface area covered.

If an aerating agent is to be used, this should be done after the first mixing, as an addition to the final dose of water.

If it is used for paving an outdoor area (e.g. a roof), it should be protected with waterproofing material (it is not waterproof itself).

After MASTER FLOOR application, the usual procedure of the maintenance for mortars' filling is necessary.

Packaging

MASTER BLOCK is available bagged (in 500 and 1.000 liter Big Bags, in 20-liter plastic packaging) and in bulk.

Instructions for safe use

- MASTER FLOOR is not dangerous to the applicators health and the environment.
- It is not irritating to the skin.
- When mixing, avoid contact with the eyes. Use safety glasses.



Advantages & Technical characteristics



LAVA pumice stone is a **natural, environmentally friendly product**. It is a volcanic material which does not require the supply thermal energy for its expansion (as a contrary to other artificial lightweight aggregates).



Pumice stone has highest strength among all the lightweight aggregates of mineral origin (naturally and artificially expanded) and screed. It ensures increased endurance from the second day with **cement's amount reduction by 30%** compared to other commonly used lightweight concretes.



Additional surface layer is not required for tiles' coating, granite slabs etc and screed.



MASTER FLOOR has a **low specific weight** which has as a results in significant **reduction of loads** on the building.



It is **reinforced against cracking** due to the **polypropylene** fibers' addition.



MASTER FLOOR is **inert** when in contact with the still reinforcement (does not corrode iron).



It has **heat-insulating** and **sound-insulating properties**.



Does not produce dust – ensures neatness of construction site.



MASTER FLOOR is homogeneous and is **not separated** during transportation/handling of the bags.

The selected grain size and the specific ratio of pumice and sand:



A) creates a suitable surface with **increased tile adhesion** and **tile-adhesive saving**.



B) makes the fresh mix **pumpable** over a wide range ratio of water and cement.

Specifications

The **standard mix-design with CEM II 32.5N** and **quantity 200 kg/m³** gives high strength results, already from the second day.

Indicative strength development:

2 days: 1.5 MPa

7 days: 2.8 MPa

28 days: 5.0 MPa

Product specific density:

fresh: 1550 – 1650 kg/m³

balance: 1500 – 1600 kg/m³

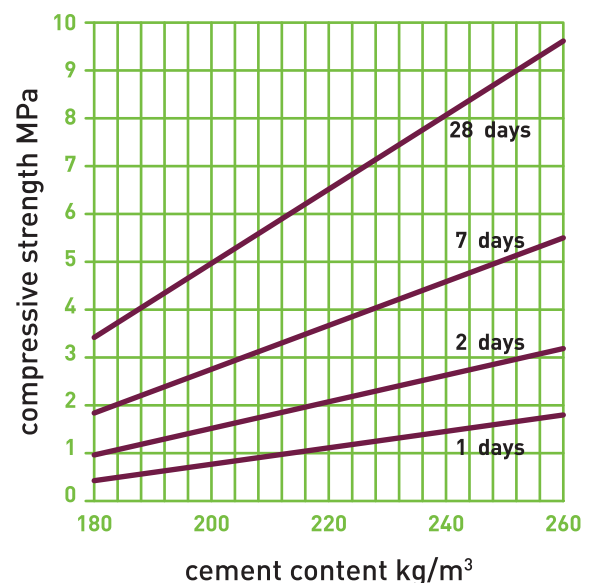
dry (reference): 1450 – 1550 kg/m³

The **strength** of the laid product depends on the cement content, as shown in the diagram.

Coefficient of thermal conductivity (EN 12664) :

$\lambda = 0.41 \text{ W/(m}\cdot\text{K)}$ for MASTER FLOOR dry density 1400kg/m³

$\lambda = 0.47 \text{ W/(m}\cdot\text{K)}$ for MASTER FLOOR dry density 1550kg/m³



HERACLES Group

HERACLES Group, a member of Holcim, is the leader in the Greek building materials market, with more than 110 years of presence.

It is the largest cement and concrete producer in the country with 36 productive and commercial facilities throughout Greece.

LAVA

LAVA Mining & Quarrying operates in the minerals sector since 1952 and specifically in the mining, processing and trading of pumice, gypsum, pozzolan, silicate etc.

Pumice stone offers a lot of innovative solutions in construction, geotechnical projects and industry.

6 Companies:

HERACLES | LAFARGE | LAVA | GEOCYCLE | WATT Recycling | HERACLES Shipping

2 Cement Plants

18 Quarries

32 RMX Plants

4,000 Customers

300 Contractors

>1,100 Employees

12 Ports



Building Materials:

Cement



Aggregates



Ready-Mix Concrete



Other Construction Materials



Technical Sales Support

The Technical Sales Support department focuses on providing information about the properties, quality and applications of all company's products and resolution of potential technical issues, that might arise.



TECHNICAL
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SUPPORT

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MASTER FLOOR

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www.xtizoumemazi.gr
ALL ABOUT
CONSTRUCTION

COMMERCIAL PARTNER
(Point of Sales)

- Low material weight
- Thermal insulation properties
- Cost saving
- Fiber Reinforced - Cracking Avoidance
- Less dust - neatness of the construction site

**Eco
Friendly
Product** 