

POMICAL

POMICE FOR LIGHTENED CONCRETE

COMPOSITION:

POMICAL is a mixture of pumice (an alveolar product of remarkable lightness and great isolating properties resulting from natural extensions of effusive magmatic minerals) *in granulometric curves of 0-8 mm. or 0-14 mm. for the production of lighter thermo insulating and soundproof concrete* at low specific weight and easy pumping. It is a non toxic product (Silica Free).

APPLICATION FIELDS	
LIGHTLY PUMPABLE CONCRETE	THERMAL INSULATION OF ATTICS
INTERNAL AND EXTERNAL BASE PLASTER FOR THE APPLICATION OF FLOORS	RESTORING, STRENGTHENING AND ATTACHMENT OF ATTIC WITH PERMANENT STRESS REDUCTION OF THE STRUCTURE
RESTRUCTURING OF MASONRY AND REINFORCED CONCRETE TO MAKE IT LIGHTER AVOIDING THE OVERLOADING OF THE BEARING STRUCTURE	UNDERGROUND INSULATION
	LIGHT FILLINGS
SAFETY POSITIONING OF ABANDONED UNDERGROUND TANKS	SUPPORT AND FILLING OF CLOISTERED VAULTS, ARCHES AND DOMES

Using the POMICAL 0/8 or 0/14, cement, water and any additives, an optimized CONCRETE is obtained with following properties:

LIGHTNESS	DRY DENSITY APPROX. 1000 Kg/MC
RESISTANT AGAINST COMPRESSION	RCK APPROX. 10 N/mm ²
THERMAL INSULATION	$\lambda=0,16 \text{ W/(mK)}^{(1)}$
SOUND INSULATION	46 dB INTERNAL 8cm PARTITION + PLASTER 1,5+1,5cm
TRANSPIRABILITY	$\mu = 4^{(2)}$
EXCELLENT WORKABILITY	BLEEDING ABSENCE
FIRE-RESISTANT	DURABILITY
EXTREMELY EASY PUMPING	ECOLOGICAL
EXCELLENT VISUAL APPEARANCE OF THE SURFACE	

APPLICATION PROCEDURE

- Place the volume of POMICAL in regard to the specific weight
- Volume of water needed is approx 200-250 l/m ³ of POMICAL
- At first insert approx. 80% of water into the concrete mixer
- Insert POMICAL and cement in the needed quantity
- Continue adding of water until obtaining the desired consistency
- Pumping with standard pumps

NECESSARY DOSING

- Approx. 1,20 MC of Pumice per 1 MC of concrete, mid gross-weight until reaching 750-850 Kg/MC.
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AVAILABLE UNPACKED, IN BAGS (BIG-BAGS) 1,8MC SIZE AND IN 33LT BAGS PACKED ON PALLETS (55 bags on each pallet)

⁽¹⁾ Certificated by Politecnico of Torino n° 1450 and 1451 dated 04/21/2004

⁽²⁾ Certificated by Politecnico of Torino n° 1470 dated 06/08/2004

CONTRACT SPECIFICATIONS**LIGHT CONCRETE WITH POMICAL**

Ecological concrete, natural, lighted (density in dry condition: 1.100 Kg/m³), with transpirability $\mu=4$, thermal insulation ($\lambda= 0,164$ W/mK), fire-resistant, compression resistance: RCK=10 N/mm², consisting of natural pumice with a size of 0-14 mm, bearing the CE marking, extracted from Pitigliano (GR) Pian di Valle Nardeci quarry and consisting of cement with CE marking, applicable for:

- Internal and external jumpable plaster for floor application, also those sensitive to water (wooden, resilient...)
- Support and filling of cloistered vaults, arches and domes,
- Thermal insulation of attics
- Safety positioning of abandoned underground tanks, and for filling of cavities.

The min. thickness of application of the lighter substrate should be 5 cm.

For larger thicknesses one or more electro-welded net layers or plastic net have to be inserted.

The regulation layer must have always a break down picked up from the load-bearing components by inserting suitable sound insulations (floating solids).

During tempering the final thickness is resulting from the thermo-physical calculation based on a thermal conductivity of $\lambda= 0,164$ W/mK.

The substrates' drying time reaching the residual moisture of 2%, in accordance to the actually applicable standards, is 5 days per every cm of the substrate at a temperature of 18°C. Higher temperatures reduce the drying time, and lower ones increase it.

The light concrete should not be performed at temperatures lower than 5°C or higher than 35°C and it has to be protected from frost during the first 15 days.

In case of strong winds use anti-evaporation surface products.

Not suitable for the realization of supporting load-bearing structures

For more technical information and the conditions of use of Pumice in the phase of packing and pumping of concrete please contact the sales office of Europomice S.r.l. directly.

This mineral is a natural raw material. All data indicated above are therefore approximate and do not provide any warranty.