



## POMICAL FOR STRUCTURAL USE 44

### MIXTURE OF LIGHTWEIGHT AGGREGATES FOR CLS STRUCTURAL

Europomice identified in PUMICE and LAPILLUS products able to meet the new needs of the construction industry: **lightness, absence of silica free, high thermal and sound insulation, fluid retention**, make these volcanic aggregates of efficient substitutes for polystyrene, expanded clays and other similar materials.

**Pomical for Structural Use 44** among other does not requires machining prior to use and maintains high characteristics of pumpability and workability, even in extreme conditions.

#### COMPOSITION:

**POMICAL FOR STRUCTUR USE 44** is a *mixture of alveolar volcanic aggregates of remarkable lightness and great isolating properties* resulting from natural extensions of effusive magmatic minerals) in granulometric curves of 3/10 mm. for the production of lighter thermo insulating and soundproof structural concrete at low specific weight and easy pumping.

It is a non-toxic product (Silica Free).

#### PHYSICAL PROPERTIES

COLOR	Red amber /brown
GRAINS FORM	Polyhedral
GRAIN SIZE	3-10 mm.
RESISTANT AGAINST FRAGMENTATION/CRASHING	1,47 N/mm <sup>2</sup>
TOTAL WATER CONTENT	9,3%
WATER ABSORPTION	12,8%
SPECIFIC WEIGHT IN PILE	0,870 Mg/m <sup>3</sup>
SPECIFIC WEIGHT DRY SATURATED SURFACE	1,98 Mg/m <sup>3</sup> + 5%
TEMPERATURE RESISTANT	1140 °C - 1150 °C

#### CHEMICAL PROPERTIES

ALKAL-SILICA REACTIVITY (average expansion % after 90 days)	0,0161% (not reactive)
CHLORIDES	< 0,001%
SOLUBLE SULPHATES IN ACID	< 0,05%
TOTAL SULFUR	< 0,04%
CONTENT DETERMINATION OF HUMIC/SUBSTANCE	Absent
RADIOACTIVITY EMISSION	NDP
HEAVY METALS EMISSION	NPD
POLYAROMATIC HYDROCARBONS EMISSION	NDP
OTHER DANGEROUS SUBSTANCES EMISSION	NDP
NON-TOXIC PRODUCT (Silica Free)	

**Using POMICAL FOR STRUCTURAL USE 44, cement, water and any additives, an OPTIMIZED CONCRETE is obtained with following properties:**

LIGHTNESS	Dry density less than 2000 Kg/m <sup>3</sup>
RESISTANT AGAINST COMPRESSION	RCK approx. 44 N/mm <sup>2</sup>
THERMAL INSULATION	Good thermal insulation
SOUND INSULATION	Good sound insulation
TRANSPIRABILITY	$\mu=4$ <sup>(1)</sup>
EXCELLENT WORKABILITY	
FIRE-RESISTANT	
EXTREMELY EASY PUMPING	
BLEEDING ABSENCE	
DURABILITY	
ENVIRONMENTALLY FRIENDLY	
EXCELLENT VISUAL APPEARANCE OF THE SURFACE	

**WORDING PROPOSED**

Resistance Class (N/mm <sup>2</sup> )	Minimum cement dosage 42,5 (kg/m <sup>3</sup> )	Water cement ratio	Specific weight (kg/m <sup>3</sup> )	Specific weight hardened concrete (kg/m <sup>3</sup> )	Sand percentage 0-6 mm.
LC 30/33	420	0,50	2021	1859	35%
LC 35/38	460	0,48	2018	1857	35%
LC 40/44	510	0,45	2018	1857	35%

*N.B. All proposed formulations must be pre-tested by a qualified laboratory. Any variations in dosages can alter the final characteristics of the product.*

AVAILABLE BULK, in BIG-BAGS of 1,5 m<sup>3</sup> (53 cu ft), in BAGS of 33 lt. (7.26 gal) on pallets of 55 bags/each.

THE AVERAGE LOAD VOLUME FOR COMPLETE LOADS IS ABOUT 31 MC.

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

(1) Certificated by Politecnico of Torino n. 1470 from the 08/06/2004