



DIATHONITE[®] THERMOSTEP.047

Cork and lime based
lightweight thermal
and acoustic screed



Mediterranean way of building

Mediterranean way of building means rejuvenate and update ancient traditions. It means thinking about the old challenge of communities who have thought about protection, shelter and habitat using building models able to protect from both cold and heat thanks to the use and properties of local materials: pumice stone, perlite, clay, lime, natural fibers, cork.

The legacy of this vision, updated and modernized thanks to the evolution of the technology, is of great relevance in the era of climate change and global warming because more and more solutions are requested to ensure protection against heat and to ensure total and long lasting comfort.

The cork is at the center of the philosophy of the "Mediterranean way of building" through a unique and original use: cork granules of variable size that, associated with other natural materials, give life to mortars that ensure the well-being and the comfort of people in habitable spaces.



The enchantment of cork

The magic of cork is captured in depth, approaching their elementary particles: millions of cells accumulate every available space until saturated. An impressive sequence of regular cavities that incorporate and retain air. This fundamental property makes cork an excellent thermal insulator, a breathable material and very effective for sound absorption. This is possible because the retained static air acts as a brake for the mechanical energy of the sound waves and as a stimulus for its transformation into thermal energy.





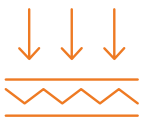
Diathonite Thermostep.047 ensures a much better technical performances than a traditional screed:



4 TIMES LIGHTER



5 TIMES MORE INSULATING



6 TIMES MORE RESISTANT



IT CAN BE DIRECTLY COATED WITH TILES

Diathonite Thermostep.047 takes advantage of the talent of nature and the extraordinary cork properties that play a critical role to thermal and acoustic performances with its unique properties, lightness, resistance, porosity. Diathonite Thermostep.047, already with a reduced thickness, guarantees compressive strength, sound insulation and protection against fire and lightness that is not comparable with other solutions on the market for screeds. Diathonite Thermostep.047 responds intelligently and effectively to a double need: improve the thermal and acoustic comfort of the homes.





380 kg/m³



MECHANICAL RESISTANCE
5 N/MM²



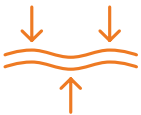
THERMAL CONDUCTIVITY
 $\lambda = 0,047$ W/MK



FIRE REACTION
CLASS A1



DENSITY
 $\rho = 380 \pm 15\%$ kg/m³



FLEXURAL STRENGTH
> 2 N/mm²



LIGHTNESS
3,90 kg/m²/cm



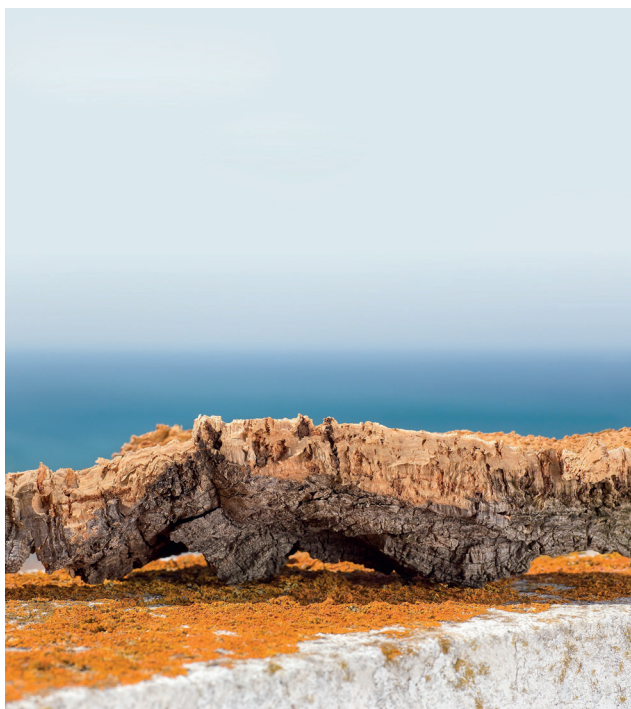


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For over 20 years, Ecological Building Systems has been at the forefront of environmental and sustainable building products supplying a range of innovative airtightness solutions and natural insulations backed up with expert technical support.

As product suppliers in the UK and Ireland, we're happy to assist you with your projects and have expert technical and sales advice on hand.



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