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# **CERTIFIED HYDROFOBIC COATING PRODUCT**









## Benefits

#### DRYNEX is the new global point of reference for the refurbishment and reinforcement of decayed masonries.

**DRYNEX** was born in 2013 by the evolution of Bioglob<sup>®</sup> plaster (2001), which was developed by Delta Phoenix research laboratories in Maclodio (Bs), as the first restoring plaster composed by Allumina and nano-binders in the world. According to its physical and chemical behavior against moisture, DRYNEX is completely different from any other material operating on the market.

In fact, its physical structure is based on a mixture of new raw materials that allows a constant granulometric distribution along the thickness in order to guarantee universal uniformity. This one permits to obtain a porosimetric curve that both nullifies the absorption of water in the liquid state and at the same time it leaves a big permeability to water vapor, essential to let masonry "breathe".

The interstitial and superficial crystallization, the most considerable physical deteriotation of classic claddings, is completly annulled in order to guarantee an extraordinary resistance to the salts dissolved in water.

Furthermore, its chemical structure, formed of new raw materials on the building market, neutralize the chemical deterioration of classic binders and the development of Thaumasites (sulfur-silicate of hydrated calcium), D.E.F. (Delayed Ettringite Formation) and Pop-Corn Calciti is chemically impossible. For this reason, pulverization and swelling of claddings are totally voided.

Research and certifications

### CE 998-1 UNI-EN 1015-18:2004 UNI-EN 1015-11:2001 UNI-EN 1015-12:2002 UNI-EN 1015-10:2000 UNI-EN 1015-6:2001 UNI-EN 6687-1973 UNI-EN 6556-1976 UNI-EN 7699-1989 UNI-EN 196-3 UNI-10859:2000 UNI-EN 1770:2000 UNI-7087:1972

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Since its first formulation called Bioglob®, several scientific tests have been carried out in the internal laboratories of Delta Phoenix Srl and University of Brescia. As time goes by, more than 40 graduation Theses and Masters, 4 Ph. D. Degrees and about ten academic papers have been published on international scientific magazines. This extensive knowledge makes **DRYNEX** the most studied plaster in the world and has permitted to change the standard qualitative features of refurbishment materials. Furthermore, according to this substantial scientific research, it has been possible to study all the characteristics of the product at the best and it has been also possible to realize that DRYNEX can be used not only for the refurbishment of wet masonries but even for the consolidation of deteriorated walls and restoration of historical-artistic heritage.

#### This material is certified as mortar designed for common purposes according to Standard UNI EN 998-1.

Moreover, the product has been approved from the Belgian government through the certification of its gualities from the public Research Centre CSTC (Centre Scientifique et Technique de la Costruction). The compound, after 4 months of independent experimental scientific tests, was certificated on 05/16/2008 (certificate number 622X707), for the use on Belgian market thanks to its highest resistance values to deterioration on the reference scale.

Starting from this excellent basis, it has been possible to realize that nowadays **DRYNEX** is the most advanced compound in terms of technology and performance.

## Case History

- Lowest adsorption of water by both capillarity and immersion permits to guarantee a more hygienic and wholesome environment
- · Raw materials designed to withstand the acid and bacterial attack in order to let DRYNEX be used even on the exterior side of buildings without any difficulty
- Usage of only one product from masonry to superficial finishing makes the application faster and easier
- · High mechanical compressive and flexural strength to obtain a better consolidation of the masonries than any other restoring plaster operating on the market
- DRYNEX can be employed even for historical and artistic heritage
- · The total lack of chemical additive in its inner parts makes DRYNEX an eco-friendly material
- Sulphates are not revealed



CÀ BALBI-VALIER (C15th) Sestriere of Dorsoduro - Canal Grande - Venice: refurbishment of 7 flats on Canal Grande characterized by high water phenome- Beginning of work in March, 2009. No non over 20 times per year. Beginning of work in 2002. No following restoration has been needed till today.



go – Lecco: Restoration on mixed masonries walls of the hystorical horse barn. following restoration has been needed till today.





(examples taken from more than 250 construction sites)

ARESE-LUCINI PALACE (C15th) Osna-



FORTE STELLA (C16th) Portoferraio Isola d'Elba (LI): external claddings afflicted with aerosol and capillarity. Beginning of work in 2006. No following restoration has been needed till today.