



SIKA AT WORK

Estate «Biblia Chora», Kokkinochori, Kavala, Greece

Sika systems & products for restoration of existing facilities & new building structure

ESTATE BIBLIA CHORA, KAVALA, GREECE



PROJECT DESCRIPTION

"Biblia Chora" Estate is a unique and special case of investments in the Greek wine sector, as within a few years since its establishment, it is present in an unprecedented way in the mind and consciousness of Greek consumers, individuals and professionals of catering. Founded in 2001, today, from the 540 acres of organic vineyards, the annual production of bottles amounts to about 650.000.

The location of the vineyards is on the southern slopes of Pangeo, at an altitude of 380 meters. The rocky terrain and the climate of the area influenced by the cool Aegean aura are the most important factors for the production of grapes that give high quality wines.

With these factors as drivers, the two oenologists, Vassilis Tsaktsarlis and Evangelos Gerovassiliou, chose the area and in 1998 they planted the first vines of the Estate, covering an area of 70 acres. In June 2001, the construction of the modern winery began and in the same year wine was first vinified. The winery is the heart of the Estate, where there are production, bottling, aging in oak barrels and bottle storage, wine tasting, reception and visitor lodging rooms.

The company closed in 2017 with a turnover of 7.5 million, increased by 6% compared to 2016, and increasing profitability.

PROJECT DEMANTS

In 2018, €3 million investments were absorbed, with the company targeting to increase exports to the Asian markets (mainly China and South Korea), which now account for about 25% of total sales and are directed to the US, Cyprus, Germany, Canada. Supporting the development of production on two main axes, on the one hand, strict quality standards - exclusively with organic grapes - and on the other hand the emphasis on promotional activities inside and outside Greece, the need for rehabilitation of the existing building structures as well as the construction of new ones was imminent.

In the existing building structures, there was a requirement to renovate the industrial floor in the wine tank area, as well as an appropriate space configuration where modern electronic presses were installed.

Alongside the existing facilities, a new, three-storey building for wine tanks (1st floor) had to be constructed, as well as maturing spaces for oak barrels and bottle storage (ground floor and basement).

During the execution of the construction, there were various system requirements, such as coating of industrial floors, rehabilitation & protection of surfaces, tiling, and thermal insulation of the building shell.

SIKA SOLUTION

Sika systems and products have been proposed and adopted for the existing and new structures, in order to meet every application requirement.

Industrial flooring systems: A floor in a production and goods management area at a winery is reasonable to set high mechanical and chemical resistance requirements. In order to form a long-term durability surface for such daily and intense stresses, the first step was to properly prepare a substrate. After the existing coating was removed, the surface was restored with **Sika MonoTop®-634 HP** cementitious mortar, using the **Sikadur®-32 EF** epoxy resin as a bridge between the substrate and the subsequent repair mortar. **Sikafloor®-161** epoxy primer was applied to the prepared surface, quartz sand was applied and the two-component, hard-elastic, color, polyurethane final coating **Sikafloor®-359 N** was applied.



The same system was applied to the 1st floor area of the new building, which was built to house wine tanks (total area ~ 750m²).

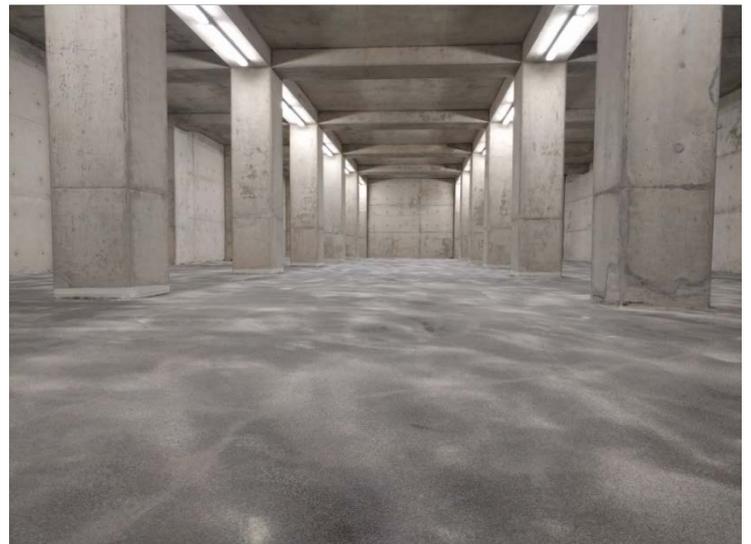
This system was also applied to an external, sheltered area in the new building which also houses wine tanks (~ 50m²).

Sikafloor® MultiDur ES-15 flooring system has been applied on a new surface that was configured in the existing building to house winemaking equipment (digging, pneumatic press, pre-fermentation extraction, fermentation and stabilization tanks). The **Sika MonoTop®-634 HP** cementitious mortar, which is certified according to EN 1504-6 for anchoring applications, was also used for all the anchoring applications of machineries and mechanical equipment.



Sikafloor® MultiDur ES-15 system (surface ~1.100m²) was also installed on the ground floor and basement of the new building where the maturing process in oak barrels takes place, as well as the storage of bottled wines.

In the new building, the cementitious surface hardener **Sikafloor®-3 QuartzTop** was applied to the industrial floors and concrete slab.





Joint sealing: Floor joint sealing was performed using the 1-component polyurethane sealant **Sikaflex® Pro-3**, while for general sealing and bonding applications the 1-component polyurethane sealant **Sikaflex®-11 FC+** was used.



External area protection: **Sikagard®-790 All-in-One Protect** was applied to both new building and general outdoor surfaces (~ 1.800m²) of the winery with exposed concrete. **Sikagard®-790 All-in-One Protect** is a protective impregnation, designed to protect porous mineral substrates of all types from the penetration of aqueous liquid and oil bases and to prevent or significantly reduce the stains they create. **Sikagard®-790 All-in-One Protect** can be used to protect facades, floors and roofs made of all common mineral materials.



Tile and natural stone bonding: Bonding of marble stone tiles and ceramic tiles was performed with the 1-component, white, cementitious-based adhesive **SikaCeram®-243 UltraFlex**. **SikaCeram®-243 UltraFlex** is a high performance, flexible, reduced slip, extended workability time, modified with selected aggregates, special admixtures and polymers cementitious adhesive. It exhibits increased deformability, features extended open time, is highly thixotropic and offers excellent adhesion even on demanding substrates.



Roof & basement waterproofing: For the roof waterproofing of the new area configured in the existing building, where the new, modern mechanical equipment of vinification were installed, **Sika® Bituseal T-640 PG & Sika® Bituseal T-650 AG** bitumen membranes were used, while the waterproofing of the walls of the new building and the fence was performed using the 1-component, cementitious, highly flexibility mortar **Sikalastic®-1K**.

External thermal insulation: For the external thermal insulation of the new building, **Sika® ThermoCoat Easy** mortar was used. **Sika® ThermoCoat Easy** is a single-component, fiber reinforced, cement mortar, suitable for bonding thermal-insulating panels and coating them with mesh embedding. It features very good adhesion to substrates such as bricks, concrete, plaster and heat insulating panels (EPS, XPS etc) and also has high resistance to temperature fluctuations and moisture, excellent workability and thixotropy.



SIKA PRODUCTS IN VOLUMES

Floor coating products

Cementitious floor hardener **Sikafloor®-3 QuartzTop**: 10,8tn

Epoxy primer **Sikafloor®-161**: 0,9tn

Quartz sand **Sikafloor® QuartzTop**: 2,4tn

Epoxy floor coating **Sikafloor®-264 N**: 1,5tn

Polyurethane floor coating **Sikafloor®-359 N**: 1,5tn

Joint sealants

1-component polyurethane floor joint sealant **Sikaflex® Pro-3**: 60 600ml sausages

1-component polyurethane sealant & adhesive **Sikaflex®-11FC+**: 30 cartridges 300ml

Surface re-construction, anchoring of machinery and equipment

1-component, cementitious, repair mortar & anchoring product **Sika MonoTop®-634 HP**: 9,6 tn

2-component epoxy resin **Sikadur®-32 EF**: 0,2 tn

Marble & ceramic tile bonding

1-component cementitious tile adhesive **SikaCeram®-243 UltraFlex**: 5,0tn

Surface protection

Protective impregnation **Sikagard®- 790 All-in-One Protect**: 2,4tn

Roof, basement & surface waterproofing

Asphaltic primer **Sika® Igolflex P-01 S**: 0,4tn

Synthetic drainage sheets **Sika® Drain S**: 840m²

Geotextile **S-Felt A 300 F**: 770m²

Bituminous felt **Sika® Bituseal T-640 PG & T-650 AG**: 1.500m²

1-component cementitious, highly flexible mortar **Sikalastic®-1K**: 1,1tn

External thermal insulation

1-component cementitious mortar **Sika® ThermoCoat Easy**: 3tn



PROJECT PARTICIPANTS:

Owner: **Estate Biblia Chora**

Architect: **Kyranna A. Samara**

Contractor: **Chrysostomidis A. - Melissopoulos E. G.P**

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