



SIKA AT WORK

External thermal insulation, Villa Sissy,
Chania, Crete

EXTERNAL THERMAL INSULATION SYSTEM (ETICS) Sika® ThermoCoat

BUILDING TRUST



EXTERNAL THERMAL INSULATION SYSTEM, VILLA SISSY, CHANIA, CRETE



PROJECT DESCRIPTION

Villa Sissy is a new habitant construction in the area of Platanias Chania, with a total surface of 300m². Constructed in August 2018, it has 4 bedrooms, 4 bathrooms, 1 WC, private parking, barbeque and is located 150 meters from the Platania beach. Chania town is 12 km away. Villa Sissy has a 100m² private pool with hydromassage in the center of the large garden, where guests can relax in comfortable sun loungers under the shade of trees or umbrella, in a private garden, on a plot of land of a total area of 800m².

Villa Sissy is the ideal choice for relaxation as it combines the benefits of a luxury hotel with privacy and exclusivity.

PROJECT DEMANDS

For the building shell, the solution of external thermal insulation was selected. The warm climatic conditions, the extremely hot summer and the intense sunshine of the area impose the application of a system that offers increased energy savings and optimization of the cooling and heating system. The total area of the building shell that had to be covered with the system was 460m².

SIKA SOLUTION

Sika® ThermoCoat thermal insulation system was proposed and applied for facade lining. External thermal insulation is one of the most cost-effective ways of upgrading the energy performance of a building thanks to its excellent balance between cost and benefits. **Sika® ThermoCoat** is comprised of high quality products that have been tested for their compatibility and durability. **Sika® ThermoCoat** system meets the specifications of the European Organization for Technical Approvals (EOTA). The individual products of the system carry a Declaration of Performance and a CE Mark in accordance with applicable European Standards. **Sika® ThermoCoat** system comprises of:

- Bonding, base & rendering mortar **Sika® ThermoCoat Easy**
- EPS thermal insulating panels **Sika® ThermoCoat-2 HS**
- Glass fiber mesh **Sika® ThermoCoat-4 HS**
- Primer **Sika® ThermoCoat-5 HS Primer**
- Ready to use acrylic rendering paste **Sika® ThermoCoat-5 HS**
- Mounting accessories **Sika® ThermoCoat Accessories**

APPLICATION PROCEDURE

After the start guides were installed, **Sika® ThermoCoat Easy** mortar was applied onto the existing properly prepared substrate to bond **Sika® ThermoCoat-2 HS** EPS thermal insulation boards. **Sika® ThermoCoat Easy** is a ready-to-use, 1-component fiber reinforced cementitious mortar that is used both as bonding and as basic mortar. **Sika® ThermoCoat-2 HS** EPS thermal insulation boards meet the requirements of heat insulating panels in an external thermal insulation system according to EN 13163. **Sika® ThermoCoat Easy** has excellent application properties, both in the base layer configuration and also during grid embedment and features particularly high adhesion to many building materials, as its characteristics include its resistance to moisture and temperature fluctuations, the usual environmental conditions in a seaside area in Greece. **Sika® ThermoCoat Easy** mortar is certified as general-purpose mortar (GP CS-IV W2 according to EN 998-1) for coatings in indoor and outdoor applications.



The alkali resistant glass fiber mesh **Sika® ThermoCoat-4 HS** was embedded on the base coat. **Sika® ThermoCoat-4 HS** is designed for use as a reinforcement glass mesh. It offers a uniform stress distribution over its entire surface of the render, to avoid pointing and cracking, as well as long-term resistance against movements due to temperature fluctuations or shrinkage.

Prior to the basic mortar layer, the 1-component, cementitious, waterproofing mortar **Sikalastic®-1K** was applied to strengthen the sealing zone at the base of the facade, as well as on terraces and flashings on the roof. Applying **Sikalastic®-1K** waterproofing mortar offers an additional protection to ensure system watertightness in critical zones, joints and details. On the base coat the color, acrylic primer **Sika® ThermoCoat-5 HS Primer** was applied. It offers water repellency in depth, provides long-term durability of the system as a whole and is available in a wide range of shades for uniform color shade of the final layer.

For the final rendering the acrylic paste, **Sika® ThermoCoat-5 HS** was used. Its features include its excellent UV resistance, while it is breathable, water-repellent and is highly elastic and workable. The paste is available in a wide color range and in various granulometries, to achieve the desired aesthetic result. It can also be applied by spraying, ensuring high construction speed and on time delivery of the project in use.



PRODUCT SALES IN VOLUMES:

- Bonding & basic mortar **Sika® ThermoCoat Easy**: 5,6 tns
- Waterproofing mortar **Sikalastic®-1K**: 0,7 tns
- EPS Thermal insulation panels **Sika® ThermoCoat-2 HS**: 370m²
- Glass mesh **Sika® ThermoCoat-4 HS**: 550m²
- Primer **Sika® ThermoCoat-5 HS Primer**: 125 kg
- Ready to use acrylic paste **Sika® ThermoCoat-5 HS**: 1,35 tns
- Pins **Sika® ThermoCoat-8 HS**: 2100 pcs
- Water ponds **Sika® ThermoCoat**: 45 pcs
- Angle grinders **Sika® ThermoCoat**: 270 pcs

PROJECT PARTICIPANTS:

Owner: **Sissy Kavroudaki**

Commercial partner: **Domiki Kolymvariou**

Applicator: **Panagiotis Saslis**



Our most recent General Sales Terms shall apply.
Please consult the most recent Product Data Sheets prior to any use and processing.



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