



SIKA AT WORK

L.A. Farm Dairy production unit, Trikala, Greece

Flooring: SikaScreed® HardTop-60 & Sikafloor® PurCem® HS-21

Tank protection system: Sikagard® & Sikalastic®



BUILDING TRUST



DAIRY PRODUCTION UNIT L.A. FARM, TRIKALA, GREECE



PROJECT DESCRIPTION

In 1960 in the area of Parapotamos Trikala, Athanasios Plexidas began his involvement with cheese production activities. Within a short time, the family cheese dairy he created, became known for its wonderful, genuine feta cheese, which was made with milk from sheep and goats of the family, but also those of his fellow villagers.

The years passed and the small family cheese factory grew and developed into a strong company with numerous staff and a wide variety of excellent products.

Today, L.A. Farm S.A. counts almost 60 years of successful presence in the Greek cheese producing sector, supporting the Thessalian and wider Greek livestock. A constant value over the years is the use of the best raw materials, which results in an excellent feta with rich taste and unique quality. In addition to feta and white cheese production facilities, L.A. Farm S.A. also has a state-of-the-art product packaging department. In total, the industry occupies an area of 160.000 m², with facilities over an area of 50.000 m².

L.A. Farm products transfer all around the world the art and tradition of Thessalian cheese-making, garnering excellent reviews and having steadily growing international sales with exports over many countries.

PROJECT DEMANDS

As one of the most modern cheese producing companies in Greece, L.A. Farm S.A. aims to combine the Thessalian tradition with continuous investments in equipment and automation.

The company invested and completed in 2019 the creation of new refrigerator chambers and warehouses, spending a total of 15 million euros. In addition, within 2020, for the launch of new products on the market, there was an investment planning of over 5 million euros.

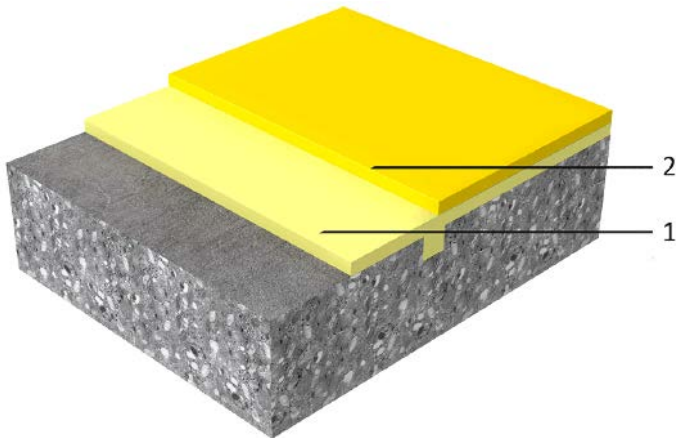
In the context of the implementation of the investment program, additional maintenance of existing facilities was required, which included protective system for two tanks used for processing & storage of biological cleaning products, with a total surface of 700m² and 900m² respectively, but also the floors in the production area and maturation chamber of cheese products, with a total area of 700m².

SIKA SOLUTION

Floor of production areas & cheese maturation chamber: As in the food processing and management industries, a clean floor is obviously an essential requirement in order to provide a healthy working environment that at the same time contributes to the overall framework of high-quality production processes, a **Sikafloor® PurCem®** system has been proposed and implemented. **Sikafloor® PurCem®** flooring systems are hybrid polyurethane-cementitious self-leveling systems with superior mechanical properties, abrasion and wear resistance, as well as ease of cleaning and maintenance. Depending on the selected system, the surface can form a final mat, smooth or embossed surface, depending on the specific safety and antistil requirements imposed by the specific use of each space. In any case, **Sikafloor® PurCem®** systems have several certifications for suitability of application in food processing areas, indicative according to EN1186, EN13130, ISEGA, USDA and the Canadian Food Inspection Agency. **Sikafloor® PurCem®** systems are certified as suitable for use in food and beverage facilities that operate in accordance with a HACCP based Food Safety Programme. In addition, the products comprising **Sikafloor® PurCem®** systems are approved as Cleanroom Suitable Material (CSM products). CSM certified products are the world's first standardized products according to ISO 14644 and GMP standards for all high-purity and cleanness areas and industrial facilities. The Fraunhofer IPA Institute has established the CSM Industrial Alliance with the aim of creating a solid industrial base for evaluating the degree of cleanness of materials and defining the criteria for selecting suitable products for high-purity and cleanness areas. Sika is a founding member of this alliance and has an active role in the development of these standards and regulations.

Sikafloor® PurCem® HS-21 system was applied in both areas. **Sikafloor® PurCem® HS-21** is specially designed to withstand chemical attacks, high impacts and can be applied in wet and dry process industries. The system consists of a durable base layer of polyurethane cement and features high aesthetics, easy cleaning and a smooth surface with medium anti-slip characteristics. It is typically applied in a thickness layer between 4-6mm.

Sikafloor® PurCem® HS-21 build-up



Layer	Product
1. Scratch coat	Sikafloor® -21 PurCem®
2. Base coat	Sikafloor® -21 PurCem®

Production area: For the renovation of the production site, the process included dismantling the old industrial tile lining, substrate preparation, leveling and filling with **SikaScreed® HardTop-60**. **SikaScreed® HardTop-60** is a 1-component, cementitious, fast-curing, high-strength floor leveling and industrial floor repair mortar. It forms a smooth surface with low maintenance requirements, high mechanical strength and resistant against abrasion. Its main advantages include the unique combination of extended available finishing time (> 60 minutes) with the possibility of laying floor covering systems (epoxy, polyurethane or hybrid systems) within just a few hours after application, thus satisfying the justified requirements of producing facilities, for minimizing "dead" time during maintenance periods.

Next coating was application of **Sikafloor® PurCem® HS-21** system, at 4,5 mm thickness.



Cheese maturing chamber: As this area did not have a final old lining, it was prepared with the aim of forming an open structure substrate, without laitance, where the **Sikafloor® PurCem® HS-21** system was applied at a thickness of 4,5 mm.



Biological treatment tanks: Dairy industry in general is of great interest in terms of the exploitation of waste, as it is one of the largest industries in the world, producing huge amounts of waste, mainly liquid. Dairy waste mainly includes milk and dairy products, brine, detergents, lubricants and has a high organic load due to the proteins, fat and lactose it contains. The main feature of dairy waster is the high level of nitrogen and carbon.

In the context of planned maintenance of treatment & storage tanks for intermediate and final biological wastewater treatment products of the industry, application of Sika systems was required. Depending on the liquid media that would come in direct contact with the inside area of the tanks, a suitable system was used, with different chemical resistance against chemical media.

Tank with heavy chemical load: For a 900m² surface tank that included heavy chemical load management, the **Sikalastic®-841 ST** hot-spray protective and waterproofing membrane system was applied.

Sikalastic®-841 ST is a two-component, elastic, fast curing, with 100% solid content, pure polyurea based, liquid, colored, sprayed waterproofing membrane with very high chemical resistance. Its top features include fast reaction and short curing time, a feature that offers almost immediate area usage. It is applicable over a wide temperature range, from + 1 °C to + 50 °C, while it has a vast service temperature range, from -30 °C to + 100 °C. It also features excellent crack bridging ability & high abrasion resistance.

After proper surface preparation, the 3-component cementitious/epoxy based **Sikagard®-720 EpoCem®** micro-mortar was applied. With its application it provides excellent concrete protection over highly aggressive environments. It is impervious to liquids, but permeable to water vapor and requires a minimum waiting time before applying other Sika® epoxy-based products.



Application of **Sikagard®-720 EpoCem®** was followed by application of **Sikalastic® Primer MP** epoxy primer. **Sikalastic® Primer MP** offers excellent adhesion to prepared concrete surfaces, as it forms a gap and hole free surface. It has 100% solid content, without volatile organic compounds.

Finally, the 2-component, hot sprayed membrane **Sikalastic®-841 ST** was applied with special, 2-component hot sprayed equipment.



The curing of the membrane film takes place practically within seconds after spraying, forming a unique chemically resistant surface.



Waterproofing of final stage processed product: For a reinforced concrete tank, with a 700m² total surfacem where the finally processed waste was stored, the 1-component, cementitious, waterproofing mortar **Sikalastic®-1K** was used. **Sikalastic®-1K** is a one-component, flexible, fiber-reinforced cementitious-based mortar, modified with special alkali-resistant polymers. It is used as a flexible waterproofing and protection of reinforced concrete structures, such as tanks, reservoirs, piping, e.t.c.



PROJECT PARTICIPANTS:

Owner: **L.A. Farm S.A.**

Waterproofing contractor: **Monotiki Kaltsas**

Flooring contractor: **Hyper Flooring I.N.**

Chrysostomidis



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



Sika Hellas ABEE
15 Protomagias Str.
145 68, Kryoneri
Attica-Greece

Contact
Tel.: +30 210 8160600
Fax: +30 210 8160606
www.sika.gr / sika@gr.sika.com

BUILDING TRUST

