



SIKA AT WORK

Distribution center METRO S.A.,
Thessaloniki, Greece

Roofing: Sarnafil® TS 77-18 system

BUILDING TRUST



RE-ROOFING OF METRO'S S.A. DISTRIBUTION CENTER



PROJECT DESCRIPTION

Metro S.A. is a Greek supermarket chain based in the Metamorfoosi suburb of Athens, Greece. It was established in 1976 as a partnership of eight independent grocery stores. In the same year, Metro opened its first self-branded supermarket in Athens. Today the company has 108 stores all over Greece.

Following the expansion of METRO S.A. network in Northern Greece, the company operates an additional Distribution Center in the Thessaloniki Bridge area, aiming to cover even faster and better sales outlets in every corner of our country.

Following the state-of-the-art Distribution Center of the company in Oinofyta Attica, as well as the Mandra Distribution Center that has been modernized during 2019, the Distribution Center in Thessaloniki is the company's third and the first in Northern Greece.

The new Distribution Center has 60 ramps for receiving and dispatching goods, refrigerated and deep-freeze areas for meat & grocery, dry cargo areas and office space.

This new significant investment is intended to serve as a springboard for the company's growth in Northern Greece and to offer even higher quality logistics services to the company's new expanded branch network.

The Bridge Distribution Center will serve the existing branch network (60 in total) in the geographical districts of Thrace, Macedonia, Epirus (Ioannina, Thesprotia), Thessaly and Corfu. Located on a privately owned area, it operates 24 hours a day, directing its privately owned fleet of 12 trucks, which run a daily 1,200km radius, handling approximately 45,000 boxes of goods and employing 130 employees.

PROJECT DEMANDS

Distribution Centers contribute significantly to the development of the networks, achieving immediate coverage of the needs of the company's stores in all parts of the country, reducing inventories and, most importantly, immediately upgrading the quality of products and services at all levels .

At the same time, an extensive Distribution Network greatly facilitates the distribution of the products of small Greek producers that otherwise would not be able to distribute to the wider region. In this way, the shelf-life is reduced sharply, ensuring better quality and freshness, especially in the fresh product handling department. In this sense, the approach "from field to shelf till the next day" can be achieved.

The METRO S.A. Distribution Center at Thessaloniki Bridge area was already operational during the previous years, but interventions related to the restoration of the roof's waterproofing system were required to continue being functioning. The restoration had to be done by applying a new layer of synthetic waterproofing membrane over the existing PVC membrane, over the entire surface of the roof of the distribution center.

The total roof area that needed to be re-waterproofed was ~24,600m².

SIKA SOLUTION

Throughout the implementation, Sika engineers have been working closely to provide the optimum application solution. After inspecting and evaluating the status of the existing waterproofing membrane system, a new waterproofing system with mechanical fastening was selected. The new system was the FPO based synthetic membrane **Sarnafil® TS 77-18** in RAL 9016 (high reflectivity). The selected waterproofing system features a long service life, thus providing the opportunity to provide an extended warranty period and ensure the smooth operation of the building.

Sarnafil® TS 77-18 (thickness 1,8 mm) is a reinforced with polyester mesh and glass fleece, synthetic roofing membrane, based on high quality flexible polyolefin (FPO) and containing UV stabilizers and fire retardants according to EN 13956. **Sarnafil® TS 77-18** is designed for direct exposure to solar radiation and use in global climatic conditions. It is manufactured with a layer of nonwoven fiberglass for dimensional stability and high strength polyester reinforcement.



APPLICATION PROCESS

The installation of the new **Sarnafil® TS 77-18** membrane was carried out using the special **Sarnafast®** mechanical fastening components and based on Sika's wind-load calculation. The key-feature for the application was that by using a separation layer it was possible to apply the new membrane almost everywhere without removing the existing weathered one, except from individual details and elements (e.g. water runoffs) where the existing membrane was removed. The non-woven, 100% polypropylene base geotextile **SikaRoof® Felt A-300 HFT** was used as a separation layer between the existing and the new film. **SikaRoof® Felt A-300 HFT** geotextile is non-decomposable, long lasting and extremely easy to install.



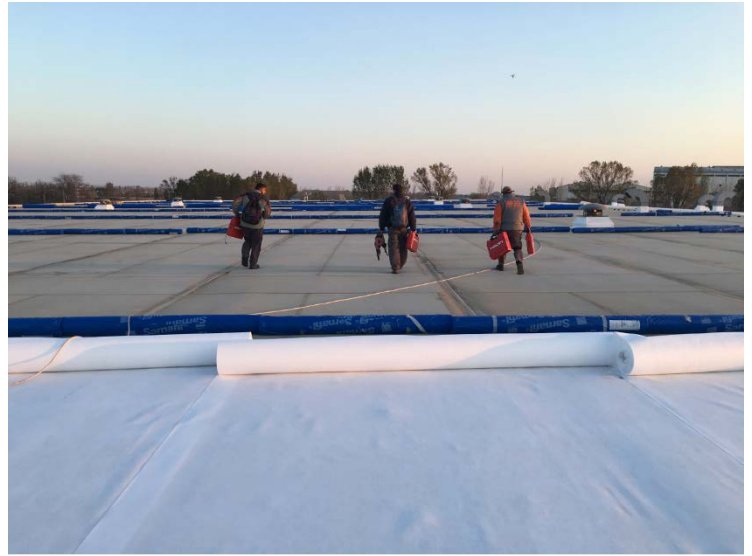
The special automatic welding machine **Sarnamatic®** was used to weld the membrane.



A wide range of auxiliary products and accessories were used to properly install the system using **Sarnafil® TS 77-18** membrane. Special details on air ducts, lights, e.t.c. were formulated with the **Sarnabar®** system (reinforced metal profile made of hot dipped steel for perimeter mechanical support of waterproofing membranes, resistant to environmental impact) and the **Sarnafil® T Welding Cord** (extruded FPO base cord) to prevent sliding of the membrane.



In addition, the **Sarnafil® T Point** fall arrest protection system was re-sealed and reinstalled and a special circulation corridor was fitted with the **Sarnafil® TG 20 WW** membrane (with special anti-slip finish). The use of all these special pieces aimed at obtaining an integrated roof waterproofing system.



Throughout the application process, Sika engineers provided full technical support to implement the system. Upon completion of the work, a Roof Inspection Protocol was conducted.



PROJECT PARTICIPANTS:
Owner: **METRO S.A.**
Contractor: **Pantelis Kostakis Ltd**



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