



# SIKA AT WORK

## Cargo Management Facilities, Jumbo S.A., Thebes, Greece

ROOFING: Sikalastic®

FLOORING: Sikafloor® Proseal W, Sikafloor®-3 QuartzTop GR



BUILDING TRUST



# CARGO MANAGEMENT FACILITIES, JUMBO S.A., THEBES, GREECE



## PROJECT DESCRIPTION

Jumbo S.A. is a purely Greek company whose main activity is the retail sale of baby, seasonal, decoration and stationery items, as well as toys. Founded in 1986, in its 32 years of operation, Jumbo S.A. has grown into one of the largest retailers with nearly 5,000 employees and 76 branches: 52 in Greece, 10 in Romania, 9 in Bulgaria, 5 in Cyprus and commercial agents in Albania, FYROM and Kosovo.

## PROJECT DEMANDS

For the new cargo management unit in Thebes, extensive renovation work on the roof of the existing building was required. Most of the roof was sloping and it also included enlightened sections.

The basic requirements were:

- Rapid delivery in use (many details on the roof)
- Application to existing substrate (old bitumen felts on the largest part of the surface)
- System resistant to ultraviolet radiation, featuring reflective properties

The total surface that had to be renovated was ~35,000m<sup>2</sup>.

In addition, the industrial floor of the building had to be renovated as well. Forklifts, lifting machinery will be moving all over the place and therefore resistance to mechanical stress and abrasion is essential. As the floor was in the interior, there was a requirement for using a LEED approved, aqueous-based, low volatile organic compound product. The total floor area was ~ 27,000m<sup>2</sup>.

## SIKA PROPOSAL

**Sikalastic® MTC** liquid membrane system was proposed for the renovation of the building's roof. **Sikalastic®** liquid membrane systems make it possible to realize design and architectural conception outside of the ordinary. The systems are applied in both new constructions and renovation projects when the use of synthetic membranes proves complex as a process and cannot guarantee fast, efficient and safe application. **Sikalastic®** liquid membranes offer the advantage of easy customization in complex details and are the ideal choice for renovating existing roofs. One of the biggest advantages of liquid membrane systems is that the existing waterproofing layer does not need to be removed. **Sikalastic®** liquid membranes are applied in combination with suitable primers, directly onto the substrate/surface of the roof. The application process causes minimal nuisance to the day-to-day operations of the building. In addition, they are cold applied. This method automatically implies safety, both for the building itself and for the applicator contractor.

For the industrial floor area, a surface sealing system has been proposed to improve curing process of the concrete floor, combined with a surface hardener, aiming to form a surface with high resistance to daily stresses. In addition, the surface of the existing concrete floor had to be stabilized against dust generation.



## SIKA SOLUTION

**Roof waterproofing:** All over the surface, the 1-component, liquid, waterproofing membrane **Sikalastic®-612** was applied, in two layers. **Sikalastic®-612** is a liquid applied membrane based on MTC technology (Moisture Triggered Technology). Sika's MTC technology describe liquid membranes based on a unique type of maturing technology that is moisture-activated, but is not affected negatively by moisture during maturation. This means that these membranes cure properly over a wide range of conditions, including extreme temperature and humidity fluctuations. Unlike conventional polyurethane liquid membrane systems, they do not release CO<sub>2</sub>, which often causes foaming phenomena and their application is not affected by adverse environmental conditions. **Sikalastic®** liquid membranes also feature high elasticity and crack bridging properties, while maintaining their flexibility even at low temperatures. On the existing surface of the roof, after pretreatment with appropriate mechanical methods, the 2- component, epoxy primer **Sika® Bonding Primer** was applied:



Then the 1-component liquid MTC membrane **Sikalastic®-612** was applied:



In joints, inverted beams, junctions the **Sikalastic®-612** system was reinforced with **Sika® Reemat Premium** glass fibre mat. **Sikalastic®-621 TC** was applied as a final coating to increase the system's durability and ensure permanent UV reflection. **Sikalastic®-621 TC** is a 1-component, liquid membrane, resistant to ultraviolet radiation (yellowing), while featuring high reflectivity properties (RAL9016).

**Industrial floor:** On the freshly-laid industrial flooring surface, the cementitious surface hardener **Sikafloor®-3 QuartzTop** was applied. **Sikafloor®-3 QuartzTop** contributes to the creation of monolithic, wear-resistant concrete floors. By applying it and incorporating it on the surface of freshly laid concrete, a smooth, abrasion and impact-resistant surface is formed. In addition, its use also reduces dust production of mineral substrates. Then the water based, curing & sealing compound **Sikafloor® Proseal W** was applied to reduce surface dryness and cracking. The product reduces dust production and further improves the abrasion resistance of the final surface. For these reasons, **Sikafloor® Proseal W** has also been applied to existing, cured concrete surfaces as a dust binder. **Sikafloor® Proseal W** is tested and evaluated using a LEED (US EPA Method 24) method for VOC emissions. This was an additional key reason for its selection.



The expansion floor joints were sealed with **Sikaflex®-11 FC<sup>+</sup>**, a 1-component elastic polyurethane sealant.



### PROJECT PARTICIPANTS:

Owner: **Jumbo S.A.**

Applicator: **P.D.P. PROESTAKIS DEVELOPMENT**

**PROJECTS A.T.E.**

**Product quantities:**

**ROOF WATERPROOFING**

Sika® Bonding Primer: 2,835 lt

Sika® Reemat Premium: 1,000 m<sup>2</sup>

Sikalastic®-612: 35 tones

Sikalastic®-621 TC: 4.7 tones

**INDUSTRIAL FLOOR**

Sikaflex®-11 FC+: 400 sausages 600 ml

Sikafloor® Proseal® W: 2.2 tones

Sikafloor®-3 QuartzTop GR: 81.6 tones



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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