



CASE STUDY



Overview

Nakheel Oman Development Company (NODC) - Dates Complex

Perceived to be a game-changer in healthy food and sustainable agriculture projects in Oman, Dates Industrial Complex in Nizwa – is one of the largest date processing plants in the world.

The project aims at having a modern date palm tree sector in the Sultanate to ensure optimum utilization of the available resources. It will create a modern date processing sector that uses the most advanced technological applications in products in parallel with the development of the traditional crafts for secondary products.

Project Details

Nakheel Date Complex - Nizwa

Polyurethane screed area : 8,500 m²

Client : Nakheel Oman Development Company

Contractor: Dawood Contracting LLC

Consultant : Semac Consultants Pvt Ltd Oman

Product : Fosroc – Nitoflor TF 120 UB

Polyurethane Screed Floor



Flooring for Food Processing Plants

Food processing plant design is somewhat complex, with many different aspects, including everything from layout to equipment, and finishes and coatings. Each part of the design plays a critical role in the safety and function of the plant, so giving them the proper consideration was vital. Unlike other facilities, food processing plants are held to high standards, and the materials they use must meet specific requirements as outlined by the government to ensure safety and sanitation.

Food safety is vital for consumer confidence and the hygienic design of food processing facilities is central to the safe production of food and beverage products. Because of the sensitive nature of food processing environments and the subsequent risk of contamination, food safety standards were factored into the design and construction of date factory at the planning stage.

it was necessary that for areas where consumable food and beverage products are produced, processed, packaged, or stored, an exposed concrete slab needs to be covered with a high-performance flooring system. Seamless resin floor finish was specified in these processing environments because of the material's hygienic profile and hardwearing performance characteristics.

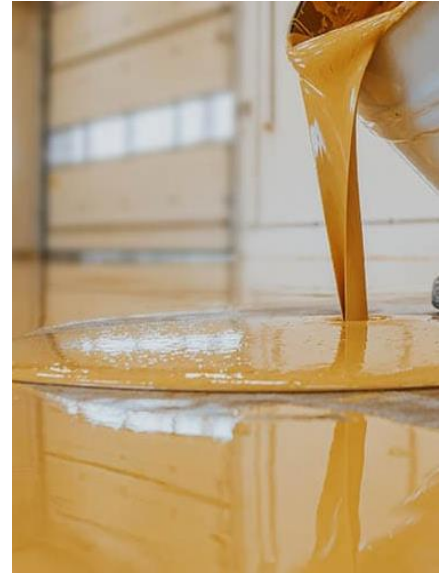
Food processing factories present a unique set of challenges when it comes to food safe flooring. Constant wet conditions, temperature extremes, corrosion with acids and alkalis, and high-pressure hosing means the floor needs to withstand severe punishment whilst being pristine and aesthetically pleasing. The proposed flooring product should be non-slip and support stringent safety and hygiene regulations such as HACCP. The cost of shutdowns to replace flooring is prohibitive for many food companies so it is critical to select the right product for the floors.





Polyurethane Screed for Floors

Polyurethane resin floor screeds have a proven track record when it comes to concrete floor surfacing in food related industries. Their service life is exemplary in demanding environments such as food processing plants, wet and dry food production, brewing, and engineering industries. Polyurethane floor screeds also have exceptional performance in heavily trafficked areas. Designed as a practical, robust floor screed, polyurethane flooring systems have extremely good chemical resistance with excellent wear, abrasion and impact resistance. Almost as a bonus the PU screeds can also be steam cleaned unlike many other flooring systems.



Product Tested and Approved

Fosroc **Nitoflor TF 120 UB** a seamless, hygienic, slip-resistant, heavy-duty polyurethane-based floor screed resistant to steam, hot water and chemicals was approved for the project.

Nitoflor TF 120 UB is designed for use as heavy duty floor screed in environments where hygiene is essential and where high resistance is required against impact, thermal shock, abrasion, and chemicals. The thermal stability and chemical resistance make it suitable for use in food processing areas, drink and beverage production areas, cold stores, freezer rooms, commercial kitchens, and restaurants. It is particularly useful in areas when steam or hot water is required for cleaning.

Challenges

The total area of the floor was 8500 m². The Nitoflor TF 120 UB screed had to be hand applied to a thickness of 6 mm, buffed and topcoat applied. Skirting was to be done on precast element. Sealant detailing needed to be maintained as per the drawings provided by the manufacturer and all these to be done within 60 days.

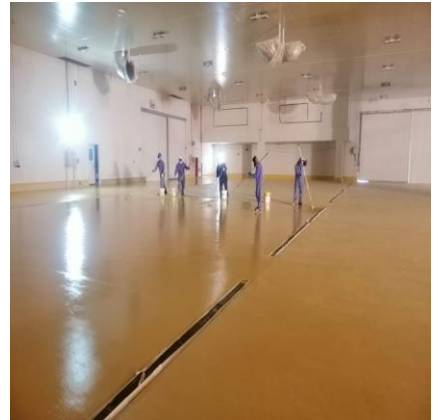
We deployed our best workforce for the job. Industrial mixing machines were deployed for proper mixing and maintain speed of works. 35 to 40 men carried out the works professionally and completed the project before time.





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Coving, Drains and Construction Joints





Support from Manufacturer

Al Amana Co LLC were the official distributors for Fosroc in Oman. The full team of Al Amana extended their full support to deliver the material on time as per schedule, site visits and technical support were provided when ever required. Their prompt delivery and support help us to reach the milestone with days to spare in spite of the tight schedule the Client and Contractor had. Team from Fosroc UAE also visited on a regular basis and provided us the required support when ever requested.

Nakheel Date Complex has become an iconic project for us as in this project we have exhibited our teams capability, timeline and project management and ability to deliver the final the finish desired by the Client and required by the manufacturer. We could not have achieved this without the support from the Client, Consultant ,Contractor and Material Supplier.

Specialized Application

Abu Anas LLC is specialized in flooring, Waterproofing, Concrete Repairs, Thermal Insulation, and Decorative flooring application in Oman.

Our team is regularly trained by leading manufacturers on existing and new systems.

Contact us at www.abuanas.om or mail us at info@abuanas.om, call 00968 91145302

