

Project Profile

BLAST MITIGATION – MARINA BAY SANDS

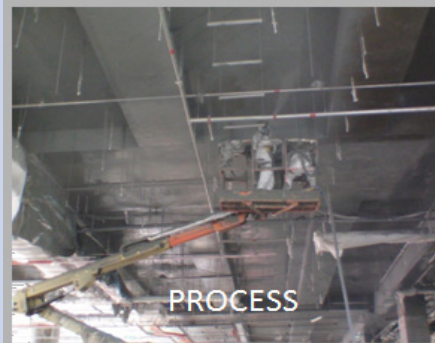
INDUSTRY : SECURITY-CONSTRUCTION
CLIENT : MARINA BAY SANDS
CONSULTANT : MINISTRY OF DEFENSE
PRIME CONTRACTOR : MARINA BAY SANDS
SUB CONTRACTOR : KIM HUP CHOR
APPLICATOR : PJI CONTRACTS
PROJECT : CASINO ANTI-SPALL
LOCATION : MARINA BAY SINGAPORE
COATING SYSTEM : NUKOTE BM /EP PRIME II
APPLICATION TYPE : DEFRAGMENTATION COATING
COATED AREA : 6,000 m²
COMPLETION : NOVEMBER, 2009

DESCRIPTION

Marina Bay Sands requested a system to replace the originally specified 250mm plate steel designed to withstand a potential 2,000 kg vehicular explosion in the access roadways above the Casino.

The objective was to design a system that would maintain structural integrity in this condition taking into account the slab construction and blast potential blast strength. Nukote designed the system and acquired ministry approval based on mathematical calculations which were approved and accepted by the Ministry.

The substrate was prepared by wet abrasive blasting using garnet to create sufficient anchor profile to meet the design specification. The prepared substrate was primed with Nukote EP prime II and then Nukote BM was applied to an average DFT of 6,000 microns (240 mils 6.0mm).



Project Profile

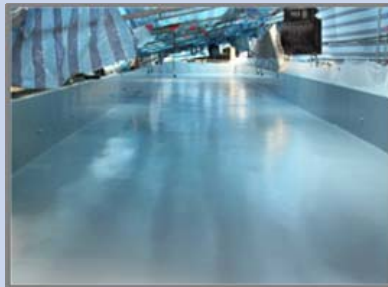
WATER CANAL - GONDOLA, MARINA BAY SANDS

INDUSTRY	: CIVIL CONSTRUCTION
CLIENT	: MARINA BAY SANDS
PRIME CONTRACTOR	: MARINA BAY SANDS
SUBCONTRACTOR	: YAU LEE CONSTRUCTION
COATING APPLICATOR	: PJI CONTRACTS
PROJECT	: GONDOLA VORTEX FEATURE
LOCATION	: MARINA BAY, SINGAPORE
SYSTEM	: NUKOTE ST / XT / PAII
APPLICATION TYPE	: PRIMARY CONTAINMENT
COATED AREA	: 1,500 m²
COMPLETION	: November, 2009



DESCRIPTION

Nukote ST was chosen as the waterproofing membrane in this high profile job after a thorough pre qualification by the Client, Consultant and the contractor. The requirements were onerous being a massive construction site and the frequent works carried out by other trades. The membrane was to stand all the normal abuse expected of a progressing site and yet remain undamaged and maintain the membrane integrity. The structures below are Retail and convention centres and a very good Impermeable membrane was a pre requisite. Nukote ST met with the stringent requirements and was applied at a DFT between 2mm and 3.5 mm depending on the requirements.



Project Profile

DOMESTIC WATER TANK – MARINA BAY SANDS

INDUSTRY	: CIVIL CONSTRUCTION
CLIENT	: MARINA BAY SANDS
PRIME CONTRACTOR	: MARINA BAY SANDS
SUBCONTRACTOR	: WANG CHUNG CONST
COATING APPLICATOR	: PJI CONTRACTS
PROJECT	: POTABLE WATER STORAGE
LOCATION	: MARINA BAY, SINGAPORE
SYSTEM	: NUKOTE ST PU PW
APPLICATION TYPE	: PRIMARY CONTAINMENT
COATED AREA	: 600 m²
COMPLETION	: February, 2010



DESCRIPTION

The project involved work in a confined space (internal tank) with only one (1) opening (600mm x 600m) at the top of concrete Tank. Confine space work has to comply with the local regulation (CP84). Force Ventilation was introduced to provide a safe working environment. Regular check for Oxygen levels and other hazardous gases was conducted by a qualified confined space assessor. Applicators working inside the tank had relevant certification by the local authority. The internal concrete tank surface preparation was done by mechanical grinder attach with Vacuum. Two pack epoxy skim coats were applied to repair all defects prior to priming.

The system applied was Nukote EP Prime II at 100 microns (0.1mm or 4-mil) over prepared substrate with Nukote ST then applied at 3000 microns (3.0mm or 120-mil). Note that the heavy coating DFT was applied to resolve poor concrete tank construction and concrete mix. Cracks and defects were dressed our prior to primer or coating application in accordance with Nukote application details. The clients primary requirements were Potable water certification (NSF), strong coating impermeability and crack bridging capabilities..



Project Profile

SKYPARK ROOF GARDEN- MARINA BAY SANDS

INDUSTRY	: CIVIL CONSTRUCTION
CLIENT	: MARINA BAY SANDS
PRIME CONTRACTOR	: MARINA BAY SANDS
SUBCONTRACTOR	: VENTURER
COATING APPLICATOR	: PJI CONTRACTS
PROJECT	: SKYPARK ROOF GARDEN
LOCATION	: MARINA BAY, SINGAPORE
SYSTEM	: NUKOTE CG-EP PRIME II
APPLICATION TYPE	: WATERPROOFING
COATED AREA	: 2,700 m²
COMPLETION	: May 2010



DESCRIPTION

Nukote CG was specified by Aedas Architects to replace the originally specified coating + liner + drainage mat + liner system. Nukote CG was approved for use as the system of choice in this critical application due to its resistance to bio degradation, root resistance and overall waterproofing capabilities. After waterproofing, The Garden roof was backfilled with drainage cell, geo textile, soil and landscaped with trees and plants.

The concrete substrate was prepared by mechanical grinding, all bug holes and pinholes sealed with Epoxy grout, followed by primer application at 100 microns (0.1mm or 4 mil) of Nukote EP Prime II followed by 2000 microns (2.0mm or 80 mil) application of Nukote CG.

Project Profile

HOTEL TOWER ROOFS- MARINA BAY SANDS

INDUSTRY	: CIVIL CONSTRUCTION
CLIENT	: MARINA BAY SANDS
PRIME CONTRACTOR	: MARINA BAY SANDS
SUBCONTRACTOR	: GLENTEQ INTERNATIONAL
COATING APPLICATOR	: GLENTEQ INTERNATIONAL
PROJECT	: HOTEL TOWERS ROOFS
LOCATION	: MARINA BAY, SINGAPORE
SYSTEM	: NUKOTE CG – EP PRIME II-ALU
APPLICATION TYPE	: WATERPROOFING
COATED AREA	: 2,000 m²
COMPLETION	: September, 2010.

DESCRIPTION

Nukote CG was chosen as the waterproofing membrane in this high profile job after a thorough pre-qualification by the Client, Consultant and contractor. The requirements were onerous, being a massive construction site and the frequent works carried out by other trades, including working at heights. The membrane was to stand all the normal abuse expected of a progressing site and yet remain undamaged and maintain the membrane integrity.

These roofs are the perimeter of 3 58 story hotel towers directly under the Skypark Garden. Directly these perimeter roofs are VIP lounges and hotel rooms which required a very good impermeable membrane.

Nukote CG met with the stringent requirements and was selected and specified. Nukote ALU (UV Stable Top Coat) was applied at 300 microns (0.3mm or 12-mil) over Nukote CT at 2000 microns (2.0mm or 80-mil) over Nukote EP Prime II primer at 100 microns (0.1 mm or 4-mil) over a grinded substrate to achieve anchor profile.



Project Profile

SKYPARK ROOFS- MARINA BAY SANDS

INDUSTRY	: CIVIL CONSTRUCTION
CLIENT	: MARINA BAY SANDS
PRIME CONTRACTOR	: MARINA BAY SANDS
SUBCONTACTOR	: VENTURER
COATING APPLICATOR	: PJI CONTRACTS
PROJECT	: SKYPARK ROOF SYSTEMS
LOCATION	: MARINA BAY, SINGAPORE
SYSTEM	: NUKOTE BG – EP PRIME II-ALU
APPLICATION TYPE	: WATERPROOFING
COATED AREA	: 2,000 m²
COMPLETION	: September, 2010.



DESCRIPTION

Nukote CG was chosen as the waterproofing membrane in this high profile job after a thorough pre-qualification by the Client, Consultant and Contractor.

The projects was complicated; a full mock-up was required by the consultant, which was carried out in Kuala Lumpur 3-months prior to the application, the application commenced on site after the 3 hotel towers below were glazed and the facility was operational (no spray applications allowed) and the final result was to be an Architectural quality finish as it would be fully visible. The system specified was Nukote ALU (roll down aliphatic colour stable urethane) at 300 microns (0.3mm or 12-mil) over Nukote BG (brush grade polyurea) at 2000 microns (2.0mm or 80-mil) over EP Prime II primer at 100 microns (0.1mm or 4-mil) over prefabricated cement board with joints taped. This system was carried out over all of the Skypark facilities buildings, restaurants and entertainment venues.

