Infinity Tower, Dubai

Project Spotlight

LOCATION:
Dubai Harbor, UAE

ARCHITECT:
Skidmore Owings & Merrill
Abu Dhabi, UAE

CONSULTANT:
Khatib & Alami
Dubai, UAE

MAIN CONTRACTOR:
Arabtec Construction
Dubai, UAE

SUBCONTRACTOR:
ASCON LEISURE & GRC
Dubai, UAE

LATICRETE SUPPLIER:
LATICRETE RAK
Ras Al Khoimah, UAE
The first thought is, WOW. That’s the impression you get when you see the Infinity Tower in Dubai, which many are calling the new face of 21st Century architecture. The first structure in the Dubai Marina development, the tower — designed and built under the motto, “Nothing is impossible” — is a marvel of modern design.

With 80 stories seemingly rising endless into the sky, the development’s groundbreaking architectural design is an ideal complement to a region that features some of the world’s most state-of-the-art infrastructure and facilities. Dubai, with its unique blend of ultra-modern malls and skyscrapers, has become a leading tourist attraction and major international business hub at the crossroads between the East and West cultures.

At first glance, the 80-story residential apartment development (there are 73 floors) arcs upward in a 90-degree spiral, creating the shape of a helix that helps shield the building’s interior from the desert sun. Designed by noted architectural firm Skidmore Owings & Merrill, it is the world’s tallest tower to feature a 90-degree twist.

There isn’t a single structural pillar anywhere inside the building. Instead, it is supported by a complex concrete column structure that holds it up from the outside (a central service core remains). The exterior façade is defined by pre-finish metal panels with repetitive staggered screen panels that filter direct sunlight to the residential units.

Clad in metal panels, the tower shimmers in the bright sunlight in a mixture of different reflective materials. The glass line sits in back of the structures, creating a deep sill that minimizes direct light and provides a screen-like effect on the building’s exterior, shading the glass and terraces. The top is crowned with a hollow latticework that continues the metallic rectangular cladding pattern. Vertically doubling in height with every one of the final levels, it expresses the shape of the structure in the sky.

The inside is sight to behold as well. The floors, rectangular in shape, are surrounded by cylindrical shafts that contain elevators and stairs that dare you to venture upward. The winding shape provides excellent views for streets residents, while bridge-like paths from the marina promenade allow access to the lobby and retail spaces. At street level, the tower intersects with the ground at large reflecting pools on the edges of the site.

The tower, a sight to behold, includes: six basements, a ground floor, mezzanine floors, six podium floors, 66 residential floors, a main roof and external facade (curtain walls). The tower offers studio, one, two, three and four-bedroom apartments, along with 11 loft floors and three penthouse floors. Amenities include a landscaped podium, retail outlets, a children’s nursery, a gymnasium, built-in wardrobes, an outdoor tennis court and eight swimming pools.

“I would rate this project as one of the best we’ve ever worked on because it is such a unique design,” says Jose Gembell, senior sales manager for LATICRETE RAK CO. LLC., who worked closely with the subcontractor, ASCON LEISURE & GRC, Dubai. ASCON was subcontracted to install the swimming pools.

For more than three years, Gembell worked closely with Richard Yap of ASCON, providing drawing plan details and training the ASCON installation team on proper application methods. Together, Gembrell and the ASCON team helped fortify the tower’s swimming pools, located on podium floors 4, 67, 68, 69, 70 and 72.

At the core of the pools’ design can be found LATICRETE® products, which were used to waterproof each of the pools’ surfaces, from the walls, to the
floor, and the grouting on the joints of the mosaic tiles. The slate of products included 3701 FORTIFIED MORTAR BED (for screeding and patching); 9235 WATERPROOFING MEMBRANE (waterproofing); 4237 LATEX ADDITIVE and 211 FILLER POWDER (tile adhesion); SPECTRALOCK® PRO Premium Grout (tile grout) and LATAPOXY® 310 ADHESIVE (pipe penetration).

“It was about defining, and then incorporating the right LATICRETE systems for the swimming pool applications,” Gembell says.

To do that, Gembell held continuous meetings with representatives from the Infinity Tower team, the consultants (Khatib and Alami), the contractor (Arabtec Construction) and ASCON.

“I helped finalize every detail on the project,” Gembell says. “It required a thorough effort, including working on site to conduct actual demonstrations and training sessions with the project team. We made sure that we went above and beyond what our clients were expecting.”

Khatib and Alami particularly were impressed with how the LATICRETE products were successfully used on swimming pool projects. For his part, Gembell helped solidify their recommendation by being a continual source of reference during the product applications.

One of the biggest benefits of the LATICRETE products is ease of use. “Their products are very user-friendly,” ASCON Leisure’s Yap says of the LATICRETE systems. “[For example] the 4237 LATEX ADDITIVE and 211 FILLER POWDER acted as a slurry bond coat, which we followed up with the 3701 FORTIFIED MORTAR BED. We used the 3701 on all the leveling. For the waterproofing application, we couldn’t have found a more proven product than 9235 Waterproofing Membrane.”

Because of its strong working properties and ability to mix with the water only, ASCON used 3701 Fortified Mortar Bed.

For all the swimming pool waterproofing, ASCON used the 9235 Waterproofing Membrane, a thin, load-bearing waterproofing membrane. The self-curing liquid rubber polymer and a reinforcing fabric quickly forms a flexible, seamless waterproofing membrane.

“It can be applied quickly with a roller brush or paint, is flexible and bonds directly to concrete surfaces,” Yap says.

Yap and his team also used 4237 Latex Additive and 211 Filler Powder to adhere the mosaics tiles because of globally proven performance in all types of application. It’s a mix that’s specifically designed for the special requirements of ceramic tile, stone and brick installations, such as what surrounds the pools at the Infinity Towers.

And because there are eight swimming pools in an arid desert climate, ASCON used SPECTRALOCK PRO Premium Grout, which offers high performance, low maintenance and chemical resistant features that inhibit the growth of mildew and mold in the grout joints. To treat all the piping penetrations, they used LATAPOXY 310 in conjunction with 9235 Waterproofing Membrane.

Throughout the process, ASCON Leisure stayed in close contact with Gembell, who was able to answer any and all of the team’s questions on the spot. “His support, and the fact that he was there at all times, really helped,” Yap says. “As a result, we are always going to use and recommend LATICRETE products. They are products — and a team — we can depend on. The products are easy to install and their team is always there to give you full support, from the beginning to the end of the project.”