Owens Corning Cem-FIL fibers reinforce the concrete used for the skeleton of a building in Miami, Florida, U.S.

No ghosts, just a skeleton ... of OC fibers



An unusual new building rising up in downtown Miami sports its structural skeleton on the outside for all to see. But Owens Corning is proud of what they can't see: The concrete skeleton is filled with Owens Corning Cem-FIL® fibers.

The building – One Thousand Museum, a tower of condominiums – features an exoskeleton, like a grasshopper or lobster. This unique approach permits the building to have large expansive interiors not broken up by structural columns.

The manufacturer of the glass-fiber-reinforced concrete for the building's structure is Arabian Profile Co. Ltd., a long-time OC customer.

"We have always had a close relationship with Arabian Profile and have provided the company with strong technical support," described Peter Ridd, market leader, Glass Reinforcement Solutions.

Relationship reaps results

OC support has helped Arabian Profile develop a relationship with and meet the demands of the building's architect, Zaha Hadid. In fact, Hadid's firm turns to Arabian Profile or Fibrex, both Cem-FIL customers, for all projects that require GFRC.

"Arabian Profile uses Cem-FIL fibers because it values the technical support that we can give, and it is comfortable working with us and our products," Peter said.



The 62-story building will look like this when it is finished in 2018.

Fibers make long journey

"All Zaha Hadid designs are eye-catching, and they work to exacting standards, which brings out the best in our customers," Peter said.

GFRC is usually used as a decorative facing. For this structure, however, builders decided to use GFRC as a permanent mold around the steel-reinforced concrete structure.

Arabian Profile relied on three-dimensional computerized models to design more than 3,000 structural pieces for the building. It makes them in Sharjah, United Arab Emirates, and ships an entire floor's worth to the job site in Miami. The shipments take about 42 days to reach Miami.

Next they are trucked to a storage yard that holds up to eight floors worth of pieces at a time, so construction won't stop if a ship is delayed. Construction is expected to be complete next year.

"GFRC manufacturers who develop their expertise and relationships have no geographic limitations," observed Peter. "Arabian Profile has been shipping up to six 40-foot containers each week, which is a complex and costly exercise. But there is always someone willing to pay for this level of quality."

The 62-story building is one of the last designs by architect Hadid, who died suddenly last year. She was the first female winner of the Pritzker Prize, architecture's equivalent to the Nobel. Her firm carries on, and Peter believes there will continue to be opportunity for more projects.

On to the next project

By the end of 2017, Arabian Profile will start work on two more iconic projects, the Bee'Ah headquarters in Sharjah and the International Trade Centre in Paris, France.

Peter noted, "These projects have two things in common. They both come from Zaha Hadid's company, and hopefully, they will use Cem-FIL fibers."