

STRUX[®] 90/40 Macro Fibers Utilized to Complete Metropolitan Miami 2

A towering opportunity for innovative concrete construction



Project	Metropolitan Miami 2
Owner	MDM Development and O'Neil Group
Contractor	Baker Concrete Construction, Fort Lauderdale, FL
Ready Mix Supplier	CEMEX USA, Miami, FL
GCP Solutions	STRUX [®] 90/40 macro fibres

The Overview

The Project

Located in the heart of bustling Miami, Florida, the Metropolitan Miami 2 development includes a 47-storey tower with 700,000 square feet (213,360 square metres) of office space linked to a 22-storey hotel. The tapered towers rise from a 14-storey podium that includes office and hotel lobbies, a ballroom, meeting space, retail shops and a restaurant and lounge. The project also includes 29 floors of composite metal decks that were specified to be constructed with welded wire mesh.



"Working with GCP, we were able to show our customer they could achieve the slump, pumpability and finish they were looking for with STRUX® macro fibres – and once we went into production, everyone was happy."



While welded wire mesh is a traditional construction technique that adds durability, it is also time consuming. With 29 floors to cover and a total of one day per floor to weld down wire mesh, a solution that could cut down on time while providing the same durability and performance was needed. Additionally, wire mesh represents a trip hazard, and prevents workers from getting a foothold on the edge of a building. Working with technical services experts from CEMEX and GCP, representatives from Baker Concrete Construction determined that STRUX®90/40 synthetic macro fibre reinforcement was the best option from a time, safety and budget standpoint.

Using STRUX®90/40 instead of welded wire mesh eliminated mesh trip hazards, storage concerns, costly crane time, materials movement and the many hours required to place the mesh. It was a complete success. Baker Concrete Construction pumped the STRUX®mixture up 29 floors, representing a 640-foot (195-metre) vertical rise, without any issues.

"We were able to show Baker Concrete a 7-inch [17.8-cm] water slump to achieve the consistency and pumpability they were looking for", said Albert Romanach, CEMEX's area manager of technical services. "We also showed them that with the type and high quality of the fibres we were using from GCP, would achieve the quality finish they wanted".

Additional Rewards of Safety, Cost, and Speed

The use of STRUX®macro fibres immediately eliminated the safety hazards inherent with the use of welded wire mesh, while delivering improvements in both cost, speed and safety. Baker Concrete Construction was able to save the cost of the wire itself, plus the cost of shipping, hoisting and installation.

Lastly, the project was able to save an immense amount of time. "We saved 38 days on the job", said Hans Rowland, Project Manager at Baker Concrete Construction. "It would have taken one day to instal the welded wire mesh for each of the 38 pours. That adds up to real dollars saved and a value-add for our customers".

Blue360SM

By switching from welded wire mesh to STRUX[®]90/40, the designers of the Metropolitan Miami saved time and money while achieving a product with superior performance. That's the promise of Blue360SM.

Blue360SM Product Performance Advantage.

Because every project, large or small, deserves the best level of protection.

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GCP Applied Technologies Inc., 2325 Lakeview Parkway, Alpharetta, GA 30009, USA

GCP Applied Technologies Holdings (Thailand) Limited., 848 Moo 2, Bangpoo Industrial Estate (North), Phraksa Mai, Muang Samutprakarn, Samutprakarn 10280, Thailand

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