Project Type
Construction of Zayed Road Network in Mina Zayed Area 01 Main Tunnel, Abu Dhabi UAE

Owner
Department of Transport (Musanada)

Consultant
Tebodin/Parsons

Contractor
Itinera- Agility JV

Sub-contractor:
Bauer International FZE

Application:
Secant Pile

Project Overview
The circular design needed to provide a design requiring a combination of moment and shear loads. Design safety and performance under combined loads were checked and approved. The use of fiberglass rebar (also known as FRP, GFRP or composite rebar) allowed for an economic and safe design.

MATEENBAR™ Fiberglas™ Rebar was used in an area of the main tunnel where the structure will be subjected to heavy loads. The high tensile strength and high modulus of elasticity were ideal plus it allowed for good splice lengths. With the high values of MATEENBAR™ Fiberglas™ Rebar, the weight was a lot less compared to other suppliers.

Why is fiberglass rebar ideal for secant pile applications?
Overall, fiberglass rebar provides a lightweight and corrosion-free material for secant pile applications. It’s quicker to work with, easier to cut, and provides a 100-year service life.