



Proven performance

SELF-COMPACTING STEEL FIBRE REINFORCED CONCRETE FOR LARGE PRIVATE GARAGE

The challenge

A structural flooring solution was required at this prestigious private housing development. The client needed a 200mm thick concrete slab to support a new multi car rack system for their garage. Given the significant weights involved, the chosen material would need to combine structural performance with a high-quality finish. After discussions with the contractor, Tarmac's Technical Sales Representative recommended TOPFLOW SF a self-compacting steel fibre reinforced concrete as the solution. It combines the speed, efficiency and high-quality finish of a flowing self-compacting concrete, with proven structural performance and crack resistance of a reinforced concrete.

Our solution

Using traditional steel reinforced concrete for this floor slab would have significantly added to the cost, logistical complexity and timescale of the building programme. By using a self-compacting concrete with an integral steel fibre in the mix, there was no need to order, store and place steel mesh reinforcement on site. The flowing nature of TOPFLOW SF meant it could be quickly pumped into place and it would not require manual compaction to eliminate air voids. The steel fibres help to enhance robustness, structural performance and flexural strength. They also reduce the risk of early-stage cracks during the drying and curing process.

Results and benefits

As planned, 24m³ of TOPFLOW SF steel fibre reinforced self-compacting concrete was supplied to the site and laid quickly in a single day. Tarmac's Technical Sales Representative was on hand throughout the work to help the contractor achieve the best possible finish for their client. Both the client and contractor were impressed with the result. As well as providing the required resistance to the heavy static loading from the car racking system and vehicles, using TOPFLOW SF would also increase the impact and abrasion resistance of the finished concrete surface helping to maintain this finish for longer.