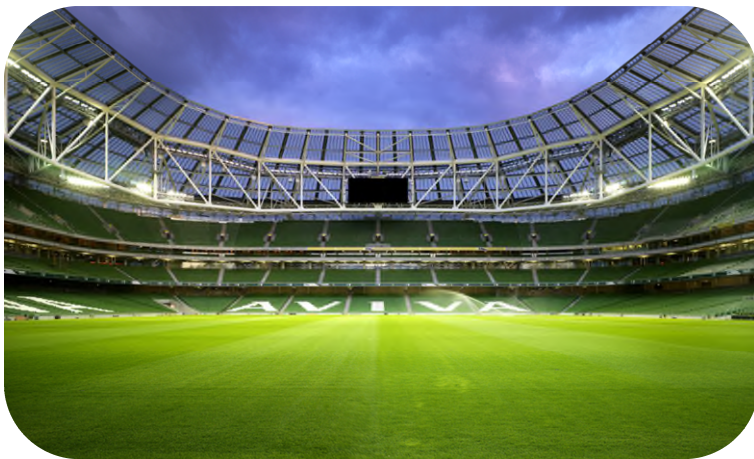


Aviva Stadium

Concrete admixtures used in construction of new stadium



Our reference in Dublin (Ireland): Aviva Stadium

The background

The new 55,000-capacity all-seater rugby/soccer stadium was built on the site of the old Lansdowne Road stadium, the oldest rugby stadium in the world. The stadium has four tiers, with the lower and upper tiers being for general access, the second tier for premium ticket holders and the third for corporate boxes. The stadium roof was designed in a wave like fashion to avoid blocking light to local residences.

The challenge

The old stadium was demolished in 2007 in the centre of a residential area, and construction needed to cause minimum disruption to all living in this quiet area of Dublin. The stadium encroached over a railway track bringing commuters from the south coast of Dublin to the city centre and beyond, so again disruption had to be minimised. Construction work began as the recession hit the Irish economy, creating doubts in certain quarters about the viability of the project.

The stadium's design incorporated a continuous curvilinear shaped stand enclosing all four sides of the ground. A watertight solution was needed for the North Stand Terrace and the Horseshoe Tier in-situ terrace.

Project:

Aviva Stadium

Location:

Dublin, Ireland

Client:

Lansdowne Road Stadium
Development Company

Contractor:

John Sisk & Sons

Concrete producer:

Cemex

Market sector:

Ready-Mixed Concrete

Products used:

MasterPel 79 I
MasterGlenium 5 I

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Our solution

Master Builders Solutions proposed waterproofing solution comprised MasterPel 791 used together with MasterGlenium 51.

A component of Master Builders Solutions Watertight System, MasterPel 791 is a high performance integral waterproofer for wet or dry cast concrete, used in conjunction with MasterGlenium high range water reducing admixtures. On curing, the system provides a waterproof structure with minimum effect on the original appearance and texture of the concrete. MasterPel 791 reduces water permeability and penetration, water absorption and air permeability.

MasterGlenium 51 is an innovative admixture based on modified polycarboxylic ether (PCE) polymers. It produces concrete with the highest durability and performance, is compatible with all types of cement and complies with EN 934 Part 2.

The customers benefit

- Ready-Mixed Concrete as required, from a local supplier, using locally sourced minerals.
- Reduced water permeability and penetration, water absorption and air permeability.
- Watertight System: maintains structural integrity.
- Reduced water permeability and penetration, water absorption and air permeability.

Project facts at a glance

- Home of the Irish national rugby team and Republic of Ireland national football team.
- The stadium has four tiers and a seating capacity of 55,000.
- The stadium roof was designed in a wave like fashion to avoid blocking light to local residents.