

Redi-Rock System

Concrete admixtures used in precast moulds for modular wall system



Our reference in Goole (United Kingdom): Redi-Rock System

Project:

Redi-Rock System, Goole

Location:

Goole

Concrete producer:

CPM Pollington Works

Market sector:

Precast Concrete

Products used:

MasterGlenium ACE 499

Master X-Seed 100

The background

The Redi-Rock Modular Wall system consists of one-tonne dry laid concrete blocks that have the look of natural stone and assemble like giant concrete Lego™.

The system is fast and easy to install and can be used in various applications including retaining walls, flood defences and landscaping.

The Redi-Rock system is delivered ready to build and the interlocking blocks need no cement, so they can be laid in any weather. Quicker to install than conventional systems, they can also be coloured to match the local environment.

The challenge

Due to the success of the system, CPM was faced with the challenge of daily double-casting these precast blocks in an effort to meet demand.

The option of increasing the number of moulds was not viable due to time constraints and cost.

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Our solution

MasterGlenium ACE 499 and Master X-Seed 100 was used in the concrete mix design.

MasterGlenium ACE 499, based on newly developed polycarboxylate ether polymers, was used to reduce the water/cement ratio of the concrete. This helped to promote strength gain, whilst still providing a workable concrete.

Master X-Seed 100 is an engineered suspension of crystal seeds containing nanoparticles, designed to boost the hydration process of early age cement (6-12 hrs). It strongly accelerates the essential growth of calcium silicate hydrate crystals using unique and innovative seeding technology, which enabled high early strength development in this project.



The customers benefit

- Ability to double cast successfully and safely without the need for any heat curing.
- Durable precast concrete elements
- Optimization of the curing cycles by reducing curing time or curing temperature.
- Increased productivity, particularly in combination with Master X-Seed 100 Crystal Speed Hardening

Project facts at a glance

- Full utilization of Redi-Rock precast moulds achieved
- MasterGlenium ACE 499 superplasticiser and Master X-Seed 100 used to give an economical and safe answer to double casting.
- Contract supply demands are met