

Areacleoch Onshore Wind Farm

Admixtures for high-quality Ready-Mixed Concrete



Our reference in South Ayrshire (United Kingdom): Areacleoch Wind Farm

The background

Areacleoch Wind Farm is Scotland's fourth largest wind farm and produces 120MW of power via its 60 turbines, enough to supply clean green energy for approximately 70,000 homes. The £42M project was a huge logistical challenge: the site lies within 24 sq. km of commercial forest plantations.

The challenge

Initially there was only a single access to the site through a 2.5m wide stone railway arch. Access and deliveries were monitored by Network Rail to ensure no damage occurred to the arch structure.

Having negotiated this, a further 2.5 miles of stone track was added to reach the site compound. To provide an access route for turbine deliveries, a new railway over-bridge was constructed at a location along the main access road.

This upgraded a 20km stretch of the existing forestry road network and all turbine component deliveries used the route to avoid passing through the local village of Barrhill and under the railway arch.

Project:

Wightlink Terminal Upgrade

Location:

South Ayrshire

Client:

Scottish Power

Main contractor:

Farrans Construction

Concrete producer:

Barr Quarries

Market sector:

Ready-Mixed Concrete

Products used:

MasterGlenium 126

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Our solution

The concrete for the project, which came from local supplier Barr Quarries, used Master Builders Solutions admixture MasterGlenium I26, a versatile admixture suitable for delivering high quality ready-mixed concrete at any time to the job site.

At the height of the project, Barr Quarries supplied over 1000m³ of concrete a week, enabling the site team to pour three of the 350m³ reinforced concrete foundations each week.

The customers benefit

- MasterGlenium I26 supported the production of a concrete with a low water/cement ratio that met the requirements of BS EN 206-1 without loss of workability.
- The admixture facilitated easier placing and improved concrete surfaces.

Project facts at a glance

- MasterGlenium I26 admixture used in c. 21,500m³ of concrete
- High quality ready-mixed concrete achieved
- Three foundation pours completed each week