

A737 Dalry Bypass

Construction of two over bridges on the A737 Dalry Bypass



Our reference in North Ayrshire (United Kingdom): A737 Dalry Bypass

The background

Construction and completion of the Dalry Bypass will encourage improved economic and employment opportunities through better journey times, reliability for motorists and businesses along the length of the A737. In addition, the Dalry Bypass will help separate local traffic from strategic traffic and lead to improved safety for both rural road users and communities.

The challenge

Farrans Roadbridge joint venture were to construct two over bridges on the A737 Dalry Bypass in North Ayrshire. The bridge decks themselves were constructed of precast concrete sections and manoeuvred into place. The precast sections left channel voids between one and another, that would later require being poured from insitu Ready-Mixed Concrete. With the structure subsequently receiving a finishing road surface, it is critical that the joint width between precast and insitu concrete was kept to a minimum.

Project:

A737 Dalry Bypass

Location:

Ayrshire, Scotland

Owner:

The Scottish Government Transport

Applicator / Contractor:

Farrans and Roadbridge JV

Designer / Architect / Specifier:

Mouchel

Market sector:

Ready-Mixed Concrete

Products used:

MasterLife SRA 900

MasterGlenium SKY 920

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Our solution

Master Builders Solutions – MasterLife SRA 900 was paired with MasterGlenium SKY 920, to achieve a concrete mix with a low water/cement ratio combined with low shrinkage values.

MasterLife SRA 900 is a liquid shrinkage reducing admixture that reduces both the autogenous and drying shrinkage of concrete, whilst maintaining its mechanical properties. The admixture is composed of carefully selected organic compounds that chemically reduce the capillary forces within concrete. MasterLife SRA 900 does not contain any expansive material.

MasterGlenium SKY 920 is an innovative superplasticizer based on a unique blend of state-of-the-art polymers. It is the next step of the Total Performance Control concept. MasterGlenium SKY 920 is specially engineered for Ready-Mixed Concrete. Its configuration allows its delayed absorption onto the cement particles and disperses them efficiently.

The customers benefit

- Ready-Mixed Concrete as required, from a local supplier, using locally sourced minerals.
- Innovative admixture technology added to achieve the perfect mix with a low water/cement ratio combined with low shrinkage values.

Project facts at a glance

- Concrete supplied from local independent supplier
- Approx. 500m³ of concrete containing MasterLife SRA 900 and MasterGlenium SKY 920
- Discharged through a concrete pump
- Placed by skilled concrete handlers