

# QC10 F

## Rapid Set Flowable Concrete



A fibre modified concrete for backfilling around manhole frames and gullies and can also be used for surface repairs.

- HAPAS Approved since 2005
- Rapid set: 10-20 minutes
- Open to traffic: 90 minutes
- Approve for use on the Underground
- Shrinkage compensated
- 20N/mm<sup>2</sup> compressive strength after 90 minutes

### Applications

QC10 F is a specifically formulated two-part polymer and fibre modified concrete for backfill around manhole frames and gullies and can also be used for surface repairs.

### Technical

QC10 F contains special cements and graded aggregate, the product requires only the addition of water on site to form a high strength concrete. QC10 F is suitable for applications from 30mm - 500mm in one pass.

### Preparation

All surfaces should be free from oil, grease, dust or any other visible contaminants. Remove all loose particles and work on a sound substrate. Pre-soak the area with clean water prior to application to aid bond. Remove ponded water before applying the product. Good concrete practice should always be observed to enable the mix to be placed into position within 4 minutes.

### Priming

Patching will require the use of Ultrascap Pro Prime Slurry Primer prior to product application. Pre-soak the substrate and apply the primer as per the instructions on its packaging. On large scale areas, only pre-soaking will be required.

### Mixing

QC10 F can be mixed mechanically or by hand. If by hand, ensure that the mixing is vigorous. Mix the inner bag containing the cement with the sand/aggregate. QC10 F is formulated to be mixed to a smooth flowable consistency. It is advisable to add a maximum of 2 litres of water initially, mix and if required, add up to a further 0.25 litres. Note: It is

essential that this product not be over-watered. The addition of excessive water will result in slower strength gain, reduced final compressive strength and the possibility of shrinkage cracking. Sand/aggregate contains moisture and the volume of water required will vary depending on the moisture content of the aggregate. Mix only enough material to apply within 4 minutes. Never remix or add water. If the product needs to be applied to walls then the water content can be reduced to obtain a stiffer consistency.

### Placing

QC10 F should be poured into place (if required lightly trowel to ensure good contact with edges) 60mm below the required surface. Once the material has reached an initial set, all horizontal surfaces of the reinstatement, including the ironwork, should be sprayed with Ultracrete SCJ. This will prevent the ingress of water into the reinstatement and promote a good bond. Ensure all vertical substrates are fully covered. Clean any mixing equipment with water immediately after use. QC10 F should ideally not be used when temperatures are below 0°C or above 30°C. For use in temperatures outside this range please contact Instarmac for advice.

### Storage

Store in closed original container at temperatures between 5°C and 30°C. Avoid frost. This product must be stored in unopened bags, clear of the ground in cool dry conditions and protected from excessive drafts. If stored correctly and used within 8 months of the date shown on the bag, the activity of the reducing agent will be maintained and this product will contain, when mixed with water, no more than 0.0002% (2 ppm) soluble Chromium (VI) of the total dry weight of the cement.

### Shelf life

Shelf life from date of manufacture in correct conditions for sealed packaging is 8 months. Note: The use of this product after the end of the declared storage period may increase the risk of an allergic reaction. High temperatures and high humidity will lead to a reduced shelf life.

### Health, Safety and Environmental

Please ensure that appropriate PPE is used when preparing, mixing and applying products. Always wash your hands before consuming food and make sure that materials are kept safely out of reach of children and animals. Please dispose of packaging and waste responsibly and in accordance with local authority requirements. A full material datasheet relating to this product is available from [instarmac.co.uk](http://instarmac.co.uk)

### Quality assurance

All products are manufactured in a plant whose quality management system is certified / registered as being in conformity with BS EN ISO 9001, 14001, and OHSAS 18001. Our products are guaranteed against defective materials and manufacture, and will be replaced or money refunded if the goods do not comply with our promotional literature. We cannot however accept any liability arising from the application or use of our products because we have no direct or continuous control over where and how our products are used. All products are sold subject to our conditions of sale, copies of which may be obtained on request.

### Technical data

Compressive strength (N/mm <sup>2</sup> )	
90 minutes	20.00
1 day	35.00
7 days	50.00
28 days	60.00
Tensile strength (N/mm <sup>2</sup> )	
1 day	1.50
7 days	2.50
28 days	3.00
Flexural strength (N/mm <sup>2</sup> )	
1 day	4.50
7 days	5.00
28 days	6.00
Workability*	5-10 minutes
Set time*	10-20 minutes
Density	2300kg/m <sup>3</sup>
Yield	12 litres approx
Colour	grey <i>As with all raw materials, colour variation may occur. This does not affect the consistency or characteristics of the product.</i>
Unit/packaging	25kg plastic bag (56 units per pallet)

\*Depending on temperatures – tests carried out at 20°C. Cool temperatures retard, warm temperatures accelerate product performance.