

# M90

## All Purpose Fast Set Mortar

**ULTRA  
CRETE**



Ideal for bedding access covers and general repairs.

- General purpose
- Conforms to HD27/15
- Rapid strength gain
- Open to traffic: 90 minutes
- Economical

### Applications

UltraCrete M90 is an all purpose fast set mortar ideal for bedding ironwork and general repairs. The product is suitable for use on all ironwork conforming to BS EN 124.

### Technical

M90 is supplied pre-blended in 25kg bags or plastic containers and requires only the addition of water. The product can be used from 10mm-75mm in one pass, with greater depths possible using the layer-upon-layer method. M90 achieves exceptional bond strength without the use of a primer. The product can be bulked out with the addition of up to 30% hard stone clean aggregate. Please note that this will reduce the products strength gain and alter its performance characteristics.

### Preparation

Surfaces should be free from any contamination of oil, grease, paint, etc. 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.

### Mixing

M90 can be mixed with a forced action mixer or by hand with an appropriate tool. If hand mixing is used, ensure that it is vigorous. 25kg of product will require approximately 3.0 litres of water. A stiff consistent mix with no slump should be achieved, ensuring all particles are well wetted. Note: Mix only enough material to apply within 4 minutes. Never remix or add extra water.

### Placing

Apply the bedding material over a pre-soaked area. Once mixed, M90 should be applied to the supporting structure within 4 minutes. Firm well into position using a float and allow a 5mm excess thickness. Place the frame onto the bedding mortar ensuring it is fully supported. Check that the frame does not overhang the mortar at any point (use suitable lifting equipment when positioning the frame). Care must be taken to prevent voids in the bedding material under the frame, especially in the cover seating area. The frame should then be tamped into place ensuring the correct level is obtained. Any holes within the frame should be in-filled and the flanges of the frame enveloped by a minimum thickness of 10mm of the bedding material. Exposed surfaces of the bedding material should be float finished, ensuring voids are filled. Remove loose materials and point the inside surface to a smooth finish. Once the bedding material has reached its initial set, the backfill material can be placed.

### Storage

Store in closed original packaging at temperatures between 5°C and 30°C. Avoid Frost.

### Shelf life

Shelf life in correct conditions for sealed packaging is 8 months. 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. 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> )	
1 hour	16.00
90 minutes	22.00
1 day	30.00
7 days	40.00
28 days	50.00
Tensile strength (N/mm <sup>2</sup> )	
1 day	2.00
7 days	3.00
28 days	3.50
Workability*	5-10 minutes
Set time*	20 minutes
Density	2220kg/m <sup>3</sup>
Coverage	Approx 1 x 400mm x 400mm standard ironwork cover and frame @ 25mm, dependant on bed depth, brickwork and substrate
Yield	12.5 litres approx
Colour	light 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 paper bag (56 units per pallet) 25kg bucket (40 units per pallet)

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

### Design Manual for Roads & Bridges – Volume 7, Section 2

The department of Transport Part 4, HD 27/15

3.11 Mortars for bedding ironwork such as manhole cover frames during repairs may be trafficked when the strength is expected to be 20 N/mm<sup>2</sup>. For rapid construction, this strength should be achieved within 2 hours.

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