Ultracrete M60 Data Sheet

Specification notes

Product: Ultracrete M60

Supplier:
Arcon Construction Supplies
19-20 Prestwood Court
Leacroft Road
Warrington
WA3 6SB

Tel: 01925 852225

Email: mail@arconsupplies.co.uk
Web: www.arconsupplies.co.uk

Call 01925 852225 or visit Arcon Construction Supplies
... for more information on our flooring and construction products
Applications

Ultracrete M60 is a rapid strength bedding mortar for use with all access covers, as well as for the rapid bonding of granite setts and flags, emergency repairs and bedding of kerbs.

Technical

Ultracrete M60 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. Ultracrete M60 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 product's strength gain and alter its performance characteristics.

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.

Mixing

Ultracrete M60 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 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, Ultracrete M60 should be applied to the supporting structure within 4 minutes. Firm well into position using a float and allowing 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 Ultracrete QC10 concrete can be placed.

Cleaning

Ultracrete M60 should be removed from tools and equipment with clean water immediately after use. Cured material can also be removed mechanically.

Health & Safety

Operatives should wear protective clothing and work in well-ventilated conditions. This product contains cement which, when mixed with water is alkaline and may in some cases cause skin irritation. If product enters the eyes, wash thoroughly with water and seek medical advice. In common with all powder products, the material should be mixed carefully, avoiding the raising of dust. For a full updated Material Safety Data Sheet please visit www.instarmac.co.uk

Features & Benefits

- Extended workability with a faster set
- Softer and easier to trowel
- Consistent and faster strength gain at low temperatures
- Improved shrinkage / greater stability in wet
- Part of the BBA/HAPAS Approved Ultracrete Manhole Reinstatement System
- Guarantees exceptional bond strength
- Allows for roads to be open to traffic within 60 minutes
- Conforms to the Department of Transport Design Manual for Roads & Bridges HA27/04
- Suitable for all ironwork conforming to BS EN 124:1994

Related Products

- Ultracrete Envirobed HA104 High Performance Bedding Mortar
- Ultracrete PY4 Polyester Resin Fast Setting Bedding Mortar
- Ultracrete QC10 Fast Set Rapid Strength Concrete
- Ultracrete QC10 F Fast Set Rapid Strength, Floxable Concrete
- Ultracrete SCJ Spray Applied Bitumen Cold Joint Sealer
- Ultracrete IRR Cold Lay Macadam
M60
Fast Set Rapid Strength Bedding Mortar

Physical Properties

<table>
<thead>
<tr>
<th>Test Age</th>
<th>Compressive Strength at 5°C (N/mm²)</th>
<th>Compressive Strength at 20°C (N/mm²)</th>
<th>Tensile Strength* (N/mm²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 hour</td>
<td>13.0</td>
<td>24.0</td>
<td>1.13</td>
</tr>
<tr>
<td>2 hours</td>
<td>26.0</td>
<td>29.0</td>
<td>–</td>
</tr>
<tr>
<td>7 days</td>
<td>–</td>
<td>44.0</td>
<td>3.18</td>
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<tr>
<td>28 days</td>
<td>–</td>
<td>60.0</td>
<td>5.24</td>
</tr>
<tr>
<td>Workability (mins)</td>
<td></td>
<td>5-10 *</td>
<td></td>
</tr>
<tr>
<td>Setting time (mins)</td>
<td></td>
<td>12-24*</td>
<td></td>
</tr>
</tbody>
</table>

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

Product Details

- **Unit/Packaging**: 25kg paper bags or plastic containers delivered on shrink-wrapped pallets
- **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 6 months. High temperatures and high humidity will lead to a reduced shelf life
- **Density**: 2220kg/m³
- **Coverage**: Approximately, 1 x 400mm x 400mm standard ironwork Cover and Frame @ 25mm, dependant on bed depth, brickwork and substrate
- **Yield**: 12.5 litres (approximately)
- **Colour**: Brownish Grey

As with all raw materials, colour variation may occur. Please note that this does not affect the consistency or characteristics of the product.

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/mm². For rapid construction, this strength should be achieved within 2 hours.

**Contact Us**
Instarmac Group plc, Birch Coppice Business Park, Danny Morson Way, Dordon, Tamworth, Staffordshire, B78 1SE, United Kingdom
Tel: +44 (0) 1827 872244 Fax: +44 (0) 1827 874466
Email: email@instarmac.co.uk Order: orders@instarmac.co.uk Website: www.instarmac.co.uk

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