

Polyester-based mortar for bedding and fixing manhole frames, kerb stones, airport lighting bases, ducting, drains and highway fixtures

webertec bedding mortar



Uses

Typical applications include:

- bedding/fixing manhole frames
- bedding of airport landing lights
- bedding of duct frames
- fixing precast concrete units e.g. kerbstones

webertec bedding mortar is suitable for external use on:

- concrete
- dense brickwork
- asphalt
- stone
- block paviers

Fully complies with the Highways Agency Design Manual Document HA 104/02 for bedding mortar for trunk roads and motorways.

About this product

webertec bedding mortar is a three-component, polyester-based mortar for the bedding and fixing of manhole frames, airport landing lights, duct frames and precast concrete units. It has been formulated for easy mixing and placement, even at low temperatures and, when cured, provides a durable, chemically resistant bedding and fixing material with good bond strength.

Technical data

The following test results were obtained in laboratory conditions. Standard grade tested at 20°C and Rapid grade tested at 5°C.

		Standard grade	Rapid (winter) grade
Compressive strength	2 hrs	50 MPa	45 MPa
Compressive strength	3 hrs	60 MPa	55 MPa
Compressive strength	24 hrs	85 MPa	80 MPa
Flexural strength	3 hrs	12 MPa	10 MPa
Flexural modulus	3 hrs	10 – 12 GPa	10 – 12 GPa
Tensile strength	3 hrs	10 MPa	9 MPa
Density		2100 kg/m ³	2100 kg/m ³

Working time (Figures given below are approximate)

Ambient temperature	Standard grade	Rapid (winter) grade
0°C	–	40 minutes
5°C	–	30 minutes
7°C	Do not use below 10°C	25 minutes
10°C	55 minutes	20 minutes
15°C	45 minutes	15 minutes
20°C	30 minutes	Do not use
25°C	20 minutes	Do not use
30°C	15 minutes	Do not use
35°C	12 minutes	Do not use
40°C	8 minutes	Do not use

Once cured, the material is suitable for service conditions of +60°C.

Features and benefits

- ▲ Meets the performance specification resulting from the Highways Agency sponsored LINK research contract carried out by Nottingham University's Department of Civil Engineering (1977)
- ▲ Easy to mix and place
- ▲ Good working time for ease of placement
- ▲ Rapid setting for quick return to service (within 2 hours at 20°C)
- ▲ Rapid grade available for cold weather working or fast completion work
- ▲ Good chemical and freeze/thaw resistance

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Preparation

Surfaces to receive the ironwork, metal bases etc. must be mechanically sound, dry and clean. All loose and friable material must be removed. Surface must be free from all dirt, dust, oil, grease, laitance etc. At temperature below 5°C when using the Rapid (Winter Grade), surfaces must be free of ice and frost.

It is extremely important that the substrate to receive the mortar material is adequately prepared, dry and free of loose and deleterious matter. If not, the bond between the resin mortar and the substrate will be greatly reduced. This could lead to bond failure at the substrate interface which will result in lateral and vertical displacement of the fixture. Avoid using heavy breakers to prepare the substrate. They are likely to induce cracking in the base which will result in the substrate becoming unstable. When preparing the substrate use wire brushes, light needle gunning or similar to remove loose and deleterious matter and for maximum bond between substrate and resin mortar the surface should be left roughened.

Application

Manhole cover frames

When installing manhole cover frames it may be necessary to first place the frame on shims to ensure the correct line and level is achieved. If shims are to be utilised they must be made from a non degradable, durable material which will not deflect under the weight of the frame and be manufactured in a range of thicknesses to allow accurate levelling. This is important in order to prevent any rocking of the frame during and after installation.

Remove the manhole frame and set aside.

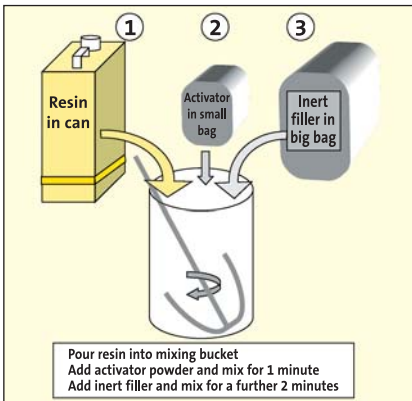
Ensure the top and underside of the cover flange is dry and free from oil, grease etc, any loose scale or rust is completely removed. Immediately after mixing place the Resin Mortar around the perimeter of the manhole chamber to depth of at least 20 to 25 mm beneath the seating area of the frame and spread across the full width of the chamber walls. Tamp the frame into position ensuring the correct line and level is established and maintained. Press the mortar into any gaps that may form along the inside edge of the frame and trim off the

excess material. Place an additional thickness of mortar in any available frame holes and above the area of the flange. The thickness of mortar should be greater than 10 mm – float the exposed surface of the mortar around the outside of the frame to fill any residual voids and remove any loose fragments. The mortar should be taken a minimum of 100 mm beyond the outside edge of the flange or to the edge of the excavation. In all cases to reduce the possibility of lateral displacement of the frame by skid forces, the mortar should be taken to the cut edge of the excavation in the direction of traffic flow.

Airport light bases

When installing lighting bases, place the mortar into the base of the drilled hole in the form of a pyramid. Ensure that enough mortar is used to form a firm base. Lower the light base onto the mortar and squeeze into place with a rotating motion. Use a levelling device to provide correct alignment.

Mixing



Pour the contents of the tin of resin (provided separately) into a clean plastic bucket.

Slowly add the contents of the bag of hardener while mixing with a slow speed mechanical mixer (450 rpm or similar) and a helical mixer attachment such as an EPI mixer MR4-130B. Mix for approximately 1 minute. Then add the filler component and mix for 2 minutes, ensuring that the material achieves a uniform colour and consistency. Do not part mix, only mix together entire packs of resin and hardener/filler.

If it is necessary to mix the resin mortar by means of a spot board and shovel or similar, extreme care must be taken to ensure the material is mixed thoroughly and achieves a homogeneous colour and consistency. Mixing time should be for at least 3 minutes. Mixing equipment must be clean and not contaminated with dirt.

Cleaning

Clean all equipment with **webertec solvent** before the resin has time to set. When using rubber buckets for mixing, allow the resin to set then remove by flexing the bucket.

Packaging

webertec bedding mortar is supplied in plastic buckets containing 1 tin of resin, 1 large bag of filler and 1 small bag of hardener. Total weight 25 kg.

Yield

Yield approx. 12 litres per 25 kg pack.

Storage and shelf life

Store in a cool, dry place out of direct sunlight. Shelf life in correct storage conditions is 12 months.

Health and safety

For further information, please request the Material Safety Data Sheet for this product.

To the best of our knowledge and belief, this information is true and accurate, but as conditions of use and any labour involved are beyond our control, the end user must satisfy himself by prior testing that the product is suitable for his specific application, and no responsibility can be accepted, or any warranty given by our Representatives, Agents or Distributors. Products are sold subject to our Standard Conditions of Sale and the end user should ensure that he has consulted our latest literature.

Technical services

Weber's Customer Services Department has a team of experienced advisors available to provide on-site advice both at the specification stage and during application. Detailed specifications can be provided for specific projects or more general works. Site visits and on-site demonstrations can be arranged on request.

Technical helpline
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Sales enquiries

Weber products are distributed throughout the UK through selected stockists and distributors. Please contact the relevant Customer Services Team below for all product orders and enquiries.

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