



RonaRoad 1 Hour Permanent Road Repair

Ultra rapid strength concrete for road repair and fast bedding for manholes

FEATURES

- High early strength bitumen concrete for road repair
- High compressive after one hour to take heavy traffic
- Rapid bedding and haunching for manholes and gullies
- Forms wearing surface
- Waterproof, frost proof

SPECIFICATION CLAUSES

1. Road repair

The road repair shall be RonaRoad 1 Hour Permanent Road Repair by Ronacrete Ltd, telephone +44 (0) 1279 638700. All materials to be applied in accordance with manufacturers instructions.

2. Bedding and haunching concrete for manholes, landing lights, gullies

The bedding and haunching shall be RonaRoad 1 Hour Permanent Road Repair by Ronacrete Ltd, telephone +44 (0) 1279 638700. All materials to be applied in accordance with manufacturers instructions.

SUMMARY APPLICATION PROCEDURE

1. Road repair

1. prepare surface
2. mix and lay RonaRoad 1 Hour Permanent Road Repair
3. cure and traffic

2. Bedding and haunching for manholes, landing lights, gullies

1. prepare surface
2. mix and lay RonaRoad 1 Hour Permanent Road Repair bed
3. immediately position ironwork/landing light
4. backfill with RonaRoad 1 Hour Permanent Road Repair
5. cure and traffic

Description

RonaRoad 1 Hour Permanent Road Repair is a 3 component bitumen concrete designed for rapid strength gain and low temperature use. Within one hour of mixing (depending on temperature) the material will have gained sufficient strength to take vehicle traffic.

The speed of RonaRoad 1 Hour Permanent Road Repair makes it ideal for use on roads, motorways, slipways and ramps, airports and stations, and in all other areas where speed and rapid strength gain is of paramount importance. After just one hour of mixing, RonaRoad 1 Hour Permanent Road Repair or a component bedded on RonaRoad 1 Hour Permanent Road Repair can be opened to vehicle traffic.

As well as achieving rapid strength, RonaRoad 1 Hour Permanent Road Repair also works at low temperatures when conventional materials cannot be used.

Applications for RonaRoad 1 Hour Permanent Road Repair

- Concrete and carriageway repairs
- Raising and bedding street ironwork
- Airport hardstanding repairs
- Haunching around manholes and gullies
- Casting rapid set concrete

Advantages

- Ultra-rapid strength gain
- Traffic within 1-2 hours of mixing
- Low temperature working down to -10°C
- Prepacked for ease of use and site control
- High strengths within hours
- Established track record since 1981
- Economical and durable

Working Time

RonaRoad 1 Hour Permanent Road Repair is a rapid set concrete system designed for mixing in small volume. It can be mixed using a drill with suitable paddle attachment, in a forced action mixer, or by hand. The working time is approximately 10-15 minutes, dependent on material and ambient temperature and mixing time. It must be mixed close to the area of

application so that it can be placed and finished before initial set. Excessive machine mixing should be avoided as this will accelerate the set and generate a greater exotherm.

Working Temperatures

RonaRoad 1 Hour Permanent Road Repair can be used in most weather conditions and in a wide temperature range, from -10°C to +25°C and above. At high ambient temperature the working time of the mix will be considerably reduced; it will be increased at lower temperatures. Care must be taken when using RonaRoad 1 Hour Permanent Road Repair in extreme temperatures to ensure that the water used for damping does not freeze or dry/evaporate on contact with the substrate. In very low temperatures store the material in the warm before use.

Mixing

1. RonaRoad 1 Hour Permanent Road Repair is supplied as a 3 component concrete. Part A is dry powder, Part B and Part C are polymer and bitumen gauging liquids. No water or other materials are needed.
2. To mix, place the pre-blended powders (Part A) into the mixer or mixing container and dry mix for 1-2 minutes until components are evenly dispersed.
3. Add Part B and Part C liquids to the dry powder at the same time and mix until a homogeneous concrete of suitable working consistency is produced. Mixing time should not be more than 2-3 minutes. Retain some of Part B if a stiffer working consistency is required. Using all of Part B may be required when hand mixing. Using all of Part B will produce a wetter and more workable mix which may be more difficult to place and finish on a sloping surface.

Working Instructions

Road repair

1. The area to be treated should be clean and free from grease, dirt and any friable or deleterious material
2. Damp the surface with clean water and remove excess to avoid ponding or puddles of water.
3. Prime the damp surface with a single coat of RonaRoad Rapid Primer.
4. Working close to the area of application mix as described above "Mixing"
5. Immediately place the mixed concrete onto the wet or tacky primer noting the restricted working life
6. Trowel and level the surface
7. Cure and traffic

Bedding and haunching concrete, raising and bedding ironwork, reseating manhole frames, landing lights, gullies.

1. The area to be treated should be clean and free from grease, dirt and any friable or deleterious material
2. Damp the surface with clean water and remove excess to avoid ponding or puddles of water.
3. Prime the damp surface with a single coat of RonaRoad Rapid Primer.
4. Working close to the area of application mix as described above "Mixing"
5. Immediately place the mixed concrete onto the wet or tacky primer noting the restricted working life
6. Place and position ironwork as necessary
7. Trowel and level the surface
8. Place haunching around the perimeter of the area
9. Cure and traffic

Substrate Testing

The substrate must be suitably prepared, with aggregate exposed, and must be sufficiently strong to receive a high strength repair. The recommendations given in BS8204 Part 3 1993 refer to the testing of substrates before applying mortars and fine concretes and these recommendations can be followed for repairs in strategic locations.

RonaRoad Technology

It is important to note that RonaRoad 1 Hour Permanent Road Repair is designed for small volume application where rapid strength gain is of prime importance. The hydration chemistry of RonaRoad 1 Hour Permanent Road Repair creates an exotherm; this allows the material to be used at low temperatures. This reaction is controlled in small volume mixes although heat and shrinkage cracking can occur when used in larger volumes. For bonded

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applications, such as minor cracking is not detrimental to the performance of the material.

Shelf Life and Storage

RonaRoad 1 Hour Permanent Road Repair should be stored unopened between 5°C and 25°C in dry warehouse conditions and out of direct sunlight. In these conditions shelf life is approximately 9 months.

Health & Safety

RonaRoad 1 Hour Permanent Road Repair is non-hazardous although protective clothing such as goggles, overalls and gloves is recommended to prevent any effect from prolonged skin contact, inhalation or ingestion.

In the event of skin contact, wash with soap and water. Seek medical advice if irritation or pain occurs. In the event of eye contact, irrigate with plenty of clean water and seek immediate medical advice. In the event of ingestion, do not induce vomiting. Seek immediate medical advice.

Site Attendance

When on site Ronacrete representatives are able, if asked, to give a general indication of the correct method of installing a Ronacrete product. It is important to bear in mind that Ronacrete Ltd is a manufacturer and not an application contractor and it is therefore the responsibility of the contractor and his employer to ensure he is aware of and implements the correct practices and procedures to ensure the correct installation of the product and that liability for its correct installation lies with the contractor and not with Ronacrete Ltd.

| Technical Data | RonaRoad 1 Hour Permanent Road Repair |
|---|---------------------------------------|
| Minimum depth per layer | 25mm |
| Maximum depth per layer | 150mm |
| Compressive strength, 1 hour | 10N/mm ² |
| Compressive strength, 2 hours | 20N/mm ² |
| Compressive strength, 24 hours | 35N/mm ² |
| Compressive strength, 7 days | 50N/mm ² |
| Compressive strength, 28 days | 58N/mm ² |
| Waterproof | Yes |
| Frostproof | Yes |
| Wearing surface | Yes |
| Results from laboratory cast 100mm cubes tested at 20°C. Site mixed cubes will produce lower strengths. | |

| Yield and Coverage | | |
|--------------------|---------------------------------------|---|
| | RonaRoad 1 Hour Permanent Road Repair | RonaRoad Rapid Primer |
| Pack size | 25kg pack | 2kg, 10kg |
| Coverage | 0.45m ² @ 25mm | 3-4m ² / 15-20m ² |
| Yield | 95 packs per m ³ (approx) | - |

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The information detailed in this leaflet is liable to modification from time to time in the light of experience and of normal product application, and before using, customers are advised to check with Ronacrete Ltd, quoting the reference number, that they possess the latest issue. Any person or company using the product without first making further enquiries as to the suitability of the product for the intended use does so at his own risk, and Ronacrete Ltd can accept no responsibility for the performance of the product, or for any loss or damage arising out of such use.



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