



TECHNICAL DATA

Highway Patch

Rapid Set Repair Mortar

Highway Patch is a patented hydraulic cement material that provides high early strengths, high bonding strengths and precision non-shrink performance. Unlike other accelerated materials, **Highway Patch** does not show excessive volume changes, excessive heat generation or contain any harmful or corrosive compounds. **Highway Patch** provides users with the economic advantage of adding up to 60% pea gravel (6-10mm) extension without forming excessive voids, reduced workability or long-term durability deterioration.

Highway Patch provides superior resistance to oil, grease, gasoline, salts and other chemicals found in transportation environments. It also has high wet/dry and freeze/thaw resistance for long-term performance in patching.

Areas of application

- Highways
- Bridges
- Sidewalks
- Airport runways
- Ramps
- Fast concrete repairs

Features

- Very rapid strength gain
- Precision non-shrink
- High bond strengths
- High chemical resistance
- Non Hazardous
- Economical
- Effective 60% extension
- No noxious fumes or odours

The information contained in this Technical Bulletin is as up to date and correct as possible as at the time of issue. The data provided should be used as a guide only as the performance of the product will vary depending on differing operating conditions and application methods.

The sale of any product described in this Technical Bulletin will be in accordance with ITW Polymers & Fluids Conditions Of Sale, a copy of which is available on request. To the extent permitted by law, ITW Polymers & Fluids excludes all other warranties in relation to this product.

General properties

Mixing water	:	1.5 – 2.0 litres / 15 kg pail
Volume Change ASTM C-827	:	0.0% shrinkage
Yield	:	0.008 m ³ / 15 kg

Typical Performance

Bond Strength ASTM C-882, 1 day	:	17.2 MPa
7 days	:	27.6 MPa
Set time ASTM C-807	:	25 minutes
Compressive Strength, 1 Hour		
3 Hours		20.7 MPa
1 Day		34.4 MPa
7 Days		48.3 MPa
		58.6 MPa

Estimating data

15 kg Highway Patch = 0.6 m² at 12.5 mm thick

Application directions

Placement properties

Highway Patch provides approximately 10 minutes self-levelling working time. **Highway Patch** is formulated for very rapid, economical placement while minimising placement errors and material waste

Surface preparation

Existing concrete surfaces must be thoroughly cleaned of oil and any other deleterious substances. All unsound or damaged concrete should be removed until only sound, clean concrete is exposed within the perimeter of a 5 mm minimum vertical saw cut. All loose material should be removed by brushing, washing, and/or oil-free air jet. The existing concrete to be patched should then be thoroughly saturated with water. Standing water should be removed prior to patching.

Surface preparation guidelines cannot cover all site or field contingencies and it is always recommended to perform an on-the-spot adhesion test as a Quality Assurance audit if doubt exists over the process.

Mixing

Highway Patch should be mixed in a mortar mixer. Alternatively, a suitable mixing paddle with a low speed (400-1000 rpm) power mixer may be used. Wet down the mixer before using and drain any excess water. With the mixer running, add the minimum recommended water to the mixer followed by the **Highway Patch**. Mix for 2 to 5 minutes. Add more water only if required but do not exceed the maximum water. Do not mix more material than can be placed in 10 minutes.

Application

Highway Patch may be trowelled or poured into the area to be patched. After levelling, the patch can be broomed, **brushed** or trowelled to the desired finish. Do not place in layers. Do not feather edge.

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Cold weather

When using at or near freezing temperatures, **Highway Patch** should be stored in as warm a place as possible. The patched area must be kept above 5⁰C until **Highway Patch** has set.

Curing

As soon as the patch has hardened, flood with sufficient water to keep the surface wet for at least 30 minutes. Use a concrete curing compound for proper curing practice if the patch is not being topcoated.

Cleaning

Highway Patch should be removed from tools and equipment immediately after use with clean water.

Limitations

Highway Patch should not be applied at temperatures below 5⁰C.

Storage and Shelf life

When stored in original sealed containers under dry conditions shelf life is 12 months.

Packaging

Highway Patch is available in a 15 kg pack in 10 litre plastic pails.

Ordering information

15 kg pails #E991605

Note

The figures quoted for work time, cure time and casting thickness are not definitive. They are dependent on job site conditions and will vary accordingly. In all cases we endeavour to provide typical figures for use as a guide.

Health & Safety Information

The product is hazardous. A Material Safety Data Sheet is available from the ITW Polymers & Fluids Technical Department upon request or available on our website www.epirez.com.au.

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