

## Epoxy Resin Mortar and Primer System

### Information

**Ultracrete EP-R9** is a high strength two part epoxy resin mortar and primer system, containing a blend of specialist sands and fine fillers to provide exceptional strength, bond and chemical resistance, accommodating depths from 5mm – 50mm.

### Preparation

As with all concrete repairs it is vitally important to remove all grease, oil, dust and other loose materials. Smooth substrates must be mechanically roughened e.g. by scabbling or needle gun.

### Priming

The supplied primer should be used to prime surfaces before the application of **Ultracrete EP-R9**. Mix all the contents of primer A and B thoroughly. Brush the mixed contents well into the prepared surface taking care to avoid “puddling” in depressions. **Ultracrete EP-R9** should be applied when primer has started to gel, but still has surface “tack”.

**Note:** The primer should be applied to the areas to be repaired within 10 minutes. Unused material will generate heat, therefore care must be taken when handling the material

### Mixing

Small quantities can be easily mixed by gloved hand; it is advisable to employ a forced action mixer for larger quantities. Lightly spray the solvent provided in the pack onto mixing tools in order to avoid material sticking. Thoroughly mix the buff coloured **Ultracrete EP-R9** base and dark grey coloured hardener, to produce a cohesive grey coloured trowelable mortar.

### Placing

The mixed material should be applied firmly into the primed surface to ensure positive adhesion, paying particular attention to edges and thin sections. The surface may be closed using a steel trowel.

### Cleaning

Use supplied solvent for cleaning the tools and equipment after use.

### Precautions

The cleaning solvent is flammable. Do not use near a naked flame or smoke during use. Flash point 38°C.



### Features & Benefits

**Ultracrete EP-R9** is a high strength, two component epoxy, resin mortar. Ideal for fast and permanent concrete repairs. Will accommodate depths from 5-50mm.

- Chemical resistant.
- High strength.
- Build from 5-50mm.
- Waterproof.
- Speedy to apply.
- Reduced risk of site errors .
- Manufactured under a Quality Management System BS EN ISO 9001: 2000.

### Recommended Applications

Bonding coping stones, arris repairs, bedding granite setts and for concrete repair for floors that are subject to heavy wear and tear.

### Related Products

**Ultracrete EP-R9**

Contractors Pack available for larger projects.

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## Health & Safety

Resin components have a flash point in excess of 100°C.  
Keep containers closed when not in use.

Cleaning solvents should not come into contact with skin or eyes. Avoid inhalation of fumes and work in well-ventilated areas.

The use of barrier creams, protective clothing including gloves, goggles and facemask are recommended.

**Ultracrete EP-R9** can be removed from the skin by using a suitable cleansing cream, soap and water. If swallowed do not induce vomiting, seek immediate medical attention.  
Keep out of the reach of children.

## General Properties – Ultracrete EP-R9 (formerly known as Cembuild EP-R9)

Test	Ultracrete EP-R9
Pot Life at 20°C	30 Minutes
Initial Hardness	1 hour
Full Cure, Days at 20°C	7 days
Minimum Application Temperature	5°C

## Low Temperature Results (5°C – 24 Hours)

Test	Ultracrete EP-R9 (5°C – 24 Hrs)
Compressive Strength, N/mm <sup>2</sup> BS6319: Part 2: 1983	24

## Mechanical Properties – Ultracrete EP-R9 (formerly known as Cembuild EP-R9)

The following results were obtained at a Base/Hardener mix ratio of 2:1 at 20°C when tested independently by Messer's Sandberg in the UK. (Report No. 5).

Product	Ultracrete EP-R9		Typical Concrete
	24 Hrs	7 Days	28 Days
<b>Compressive Strength, N/mm<sup>2</sup></b> BS6319: Part 2: 1983	38	75	30
<b>Flexural Strength, N/mm<sup>2</sup></b> BS6319: Part 3: 1983	–	22.4	5
<b>Tensile Strength, N/mm<sup>2</sup></b> BS6319: Part 7: 1985	14.3	15.6	3
<b>Bond Strength, N/mm<sup>2</sup></b> (Slant Shear Method) BS6319: Part 2: 1983	45	–	–
<b>Density of Hardened Material, Kg/m<sup>3</sup></b> BS6319: Part 5: 1984	2050	2070	2260
<b>Compressive Modulus, KN/mm<sup>2</sup></b> BS6319: Part 6: 1984	–	11.2	20
<b>Flexural Modulus, GN/m<sup>2</sup></b> BS6319: Part 6: 1990	–	10.8	–

## Chemical Resistivity – Ultracrete EP-R9 (formerly known as Cembuild EP-R9)

Water		Excellent
Hydrochloric Acid	25%	Excellent
Nitric Acid	8%	Good
Acetic acid	5%	Good
Tartaric acid	10%	Excellent
Citric acid	10%	Excellent
Lactic acid	10%	Very good
Phosphoric acid	10%	Very good
Sodium hydroxide	50%	Excellent
Sugar solution		Very Good
Ethanol		Very Good
Diesel fuel/petrol		Very Good

<b>Unit/Packaging</b>	<b>Ultracrete EP-R9</b> is supplied in 10kg or 22kg plastic tubs containing a two component hardener and primer system. The 10kg pack is supplied with 1 x 20mm brush, a solvent spray bottle and a pair of protective gloves. The high strength resin mortar will achieve depths of 5-50mm.
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<b>Hand Pack Containing (10kg)</b>	
2 x 3kg Base Packs	2 x 2kg Hardener Packs
1 x 140ml Primer Resin (A)	1 x 70ml Primer Hardener (B).
1 x 20mm Brush	1 x Pair Poly Gloves
1 x Solvent Spray Bottle	
EP-R9 Mortar Coverage	1.1m <sup>2</sup> at 4mm
EP-R9 Mortar Yield	4.8 Litres
EP-R9 Primer Coverage	1m <sup>2</sup> R9 Primer
Yield	0.210 Litres

<b>Contractors Pack: (larger projects)</b>	
Approximately 22kg Poly Bucket	Gloves, Solvent, Brushes, not included.
<b>EP-R9 Mortar Coverage</b>	
EP-R9 Contract Mortar Yield	9.5L
<b>EP-R9 Primer Coverage</b>	
EP-R9 Contract Primer Yield	0.6L
Shelf Life	Store in a cool dry place at temperatures between 5°C – 25°C. Shelf life in correct conditions for sealed tubs is 6 months.

For updated Material Safety Data information visit [www.instarmac.co.uk](http://www.instarmac.co.uk)

#### Contact us

**By Phone:** +44 (0) 1827 872244 **By Fax:** +44 (0) 1827 874466

**Email:** [email@instarmac.co.uk](mailto:email@instarmac.co.uk) **Order:** [orders@instarmac.co.uk](mailto:orders@instarmac.co.uk) **Website:** [www.instarmac.co.uk](http://www.instarmac.co.uk)