

BluRez Epoxy 225

LOW VISCOSITY EPOXY INJECTION RESIN

BluRez Epoxy 225 is a two-component solvent-free epoxy binder that requires only mixing to form a low-viscosity structural adhesive and a bonding agent.

BluRez 225, a construction-grade epoxy binder with low viscosity and exceptional strength characteristics, exhibits remarkable adhesion properties to prepared concrete, steel, and other surfaces. Its adaptability for on-site aggregate incorporation enhances versatility and cost-effectiveness across various application requirements. BluRez 225 finds utility across a diverse spectrum of construction and building applications, where it serves as an epoxy binder that combines high performance and user-friendly attributes. Mortars and concretes formulated with BluRez 225, in conjunction with appropriate aggregates, consistently exhibit significantly elevated tensile and compressive strengths when compared to conventional Portland cement concrete. Furthermore, these compositions demonstrate superior resistance to chemical agents. BluRez 225 is characterized by its solvent-free nature and low viscosity, offering expeditious curing to ensure strong adhesion to both dry and wet surfaces. Its established applications encompass serving as a steel or concrete primer, a high-strength epoxy resin for mortar screeds, an epoxy rendering solution for tank linings, a protective remedy for concrete repair, a non-shrink structural grout, a high-strength repair solution for marine pilings, and in new-to-existing concrete bonding scenarios (screeds, overlays etc). BluRez 225 stands as the preferred choice for a multitude of applications within the water industry and has undergone rigorous testing and validation in accordance with AS4020:2018 standards.

Applications

- Epoxy render, mortar screed, coving mixes, structural concrete repair
- Structural bonding as a primer for concrete and steel
- Structural Grouting and Grouting dowel bars
- Crack injection resin

Advantages

- Low viscosity aids penetration
- Excellent surface wetting
- Solventless: 100% solids
- Bonds well to damp and dry surfaces
- Fast hardening

Preparation

Remove all grease, oil, dust, residual curing compound, mould release agent or other contaminant that could impair adhesion. Concrete laitance should preferably be removed by captive shot blasting or hydrojetting. Mechanical wire brushing may be appropriate for small areas. Spalled concrete should be cut back to sound concrete and made good with BluRez 225 mortar. Conventional concrete curing compounds should be removed before application.

Steel surfaces should be cleaned to an SA Class 2.5 blast in accordance with AS 1627, near white metal with all rust removed. For small patches, this can be done by wire brush. On larger jobs, a needle gun or captive grit blasting will be effective. The action of the hydro demolition will clean the steel well and no further preparation would normally be necessary.

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Mixing

BluRez Epoxy 225 is supplied in precisely proportioned packaging ready for mixing. It is critical to the successful use of this product that part portions are not mixed. Add the two components together being sure to add the complete proportion of Part B to Part A. Mix together using a slow-speed mixer (400rpm) for at least 3 minutes or until a uniform mixture is achieved.

Application

BluRez 225 mortar or grout can be expertly applied to surfaces using conventional grouting or trowelling methods. It's important to note that when working with "dry" mortars, surface priming is required using neat BluRez 225.

When the aggregate ratio exceeds 1-3 (resin to aggregate), it is essential to utilize BluRez 225 binder exclusively for both priming and applying in a wet-on-wet manner. In cases where BluRez 225 cures during the priming process, incorporating a filler is recommended to ensure optimal performance.

For applications in cracks, either use the gravity method or injection methods. For more details refer to the product application guide.

Product Compatibility

BluRez 225 can be used in conjunction with Master Builders Solutions + Bluey repair mortars and grouts known as BluCem, BluRez, MasterEmaco, MasterBrace, MasterInject and MasterFlow. For the suitability of product applications, please contact the technical reps of MBS + Bluey Technologies. MasterEmaco 2525 can be used as an equivalent product to BluRez 225 if required.

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Product Data

Please refer to Important Notice on following page

Packaging	20 litre kits
Ratio	1 part hardener : 3 parts compound
Yield	4 - 8m ² per litre (applied as primer) 20 lineal metres of 0.5mm x 100mm per litre (crack injection)
Tack Free Time	4 hours @ 25°C
Work Time	25 minutes @ 25°C
Curing Times	24 hours @ 25°C
Solids Content	100%
Compressive Modulus	3.2GPa
Tensile Strength	50MPa
Compressive Strength	55MPa @ 24 hours, 95MPa @ 7days
Bond Strength	2.7MPa (due to concrete failure)
Recommended Crack Width	≥0.2mm
Shelf Life	9 months
Fire Standard	Meets BCA CRF
VOC	Meets GBCA Low VOC standard

TESTED CHARACTERISTIC	STANDARD	RESULT
Tensile Strength	ISO 527	50MPa
Compressive Strength	ISO 604	95MPa

Estimating Data

Select appropriate aggregate mix ratios from the following table:

Flow Characteristics	BluRez Epoxy 225/ Selected Aggregate Volume Ratio	BluRez Epoxy 225 litres/m ³	Selected Aggregate litres/m ³
Very fluid	1 : 2	500	1000
Flowable mortar	1 : 3	333	1000
Workable mortar	1 : 4	250	1000

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IMPORTANT NOTICE

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