

### DESCRIPTION

TamRez 220U is a high modulus, low viscosity, epoxy designed for use in both wet and dry conditions. Its low viscosity allows maximum penetration into small cracks, a wide range of substrates and the impregnation of carrier fabrics. TamRez 220U is designed for applications where long open time is desirable

TamRez 220U exhibits extremely high strength in its cured state.

### KEY BENEFITS

- › Underwater application
- › Potable water certified
- › Solvent free
- › Moisture / Water insensitive
- › Non-shrink
- › Pumpable
- › Low viscosity
- › Aggregate extendable
- › Can be coloured
- › Bloom free
- › Good chemical resistance (compared to standard epoxies)

### TYPICAL APPLICATIONS

- › Underwater pile injection
- › Protective / industrial coating
- › Concrete repair
- › Gravel stabilisation
- › Wet to dry bonding epoxy
- › Injection into cracks in damp concrete
- › Epoxy priming

### PACKAGING

TamRez 220U is supplied in 7.5 kg pack (6.82 litres approximately) Packaging size may vary subject to local regulations and requirements.

### TECHNICAL DATA

TamRez 220U	
Colour	Amber
Mix ratio	2:1 by volume
Density ASTM D792-20 Method A	1.05 - 1.16 g/cm <sup>3</sup>
Mixed Viscosity ASTM D2196-20	360 – 600 mpa•s
Pot life [200g] ISO 9514	40 minutes @25°C
Gel time [0.1 mm]	12 hours @25°C
Final cure	7 - 14 days
Elongation [7 days] ASTM D638-14 (Type I - V = 5 mm/min)	5%
Tensile strength [7 days] ASTM D638-14 (Type I - V = 5 mm/min)	51 MPa
Flexural strength [7 days] ASTM D790-17 Procedure AI	76 MPa
Compressive strength [7 days] ASTM D695-15	138 MPa
Shear Strength (mild steel) ASTM D1002-10	15 MPa
Pull-off strength ASTM D4541-17 (Method E – Type V)	8 MPa
All at 23°C	

### Aggregate Extension Table

Mix	TamRez 220U: Aggregate Ratio	Litres of TamRez 220U per m <sup>3</sup>	Litres of Aggregate per m <sup>3</sup>	Final Compressive Strength MPa
Pourable grout	1:2	450	900	> 65
Flowable self-priming mortar	1:3	333	1000	> 65
Mortar mix	1:4	250	1000	55
Dry pack mix	1:5	200	1000	50

Note: Results may vary depending on the aggregate used.

All technical data stated herein is based on tests carried out under laboratory conditions.

## APPLICATION GUIDELINES

As with any epoxy resin system, surface preparation is critical. All substrates are to be sound and free of contaminants prior to application.

Note TamRez 220U may be very slow to cure at temperatures below 15°C

As noted under typical applications TamRez 220U is a universal epoxy suitable for a wide range of applications.

**Injection** – refer to Injection techniques guide.

**Wet to dry bonding epoxy** – apply TamRez 220U at 3 - 6 m<sup>2</sup> / litre to prepared substrate, apply concrete / repair / topping while the epoxy is still wet.

**Concrete Repair** – apply prime coat of TamRez 220U at 3 - 6 m<sup>2</sup> / litre to the prepared substrate. Apply the aggregate extended mix (refer to table on previous page) to the prime coat while it is still either wet or tacky.

**Coating** - a TamRez Primer coat may be applied to the prepared substrate which can be thinned with TamSol if required. Coverage can vary from 4 - 10 m<sup>2</sup> per litre depending on substrate and whether TamSol is used. For additional coats the product can be extended with a wide range of fillers including light weight fillers, talc or sand to reach the desired consistency.

Successive applications should be applied while the previous application is still tacky. Non-slip aggregate can be added to the TamRez 220U or broadcast between coats if a slip resistant finish is required.

**Trowel Floor** – Add TamRez Primer coat to the prepared substrate at a coverage of approx. 4 - 6m<sup>2</sup>/litre. Apply trowel coat while primer coat is still tacky. Trowel coat of TamRez 220U is extended with sand at a ratio between 1:3 to 1:5. A ratio of 1:4 is common for commercial kitchens, warehouse floors, etc. A ratio of 1:4 gives a good balance of workability, cost and performance. Once trowel coat is set (normally takes one day), apply 2 roll coats of TamRez 220U with sand broadcast between coats for non-slip finish if required.

Common options when TamRez 220U is used as a coating system include:

- › Adding pigment to the trowel floor and/or roll coats.
- › For vertical trowel floor application, add light weight filler.
- › Add talc to roll coats to extend epoxy and for solid colours, otherwise colours will be translucent.

## Subsequent Finishes / Ongoing Maintenance

We recommend the use of TamRez Cleaner. Clean equipment immediately after use.

## STORAGE

TamRez 220U should be stored at room temperature (min 10°C and max 38°C), kept dry and out of direct sunlight. If these conditions are maintained and the product packaging is unopened, then a shelf life of one year can be expected.

## HEALTH & SAFETY

TamRez 220U should only be used as directed. We always recommend that the Safety Data Sheet (SDS) is carefully read prior to application of the material. Our recommendations for protective equipment should be strictly adhered to for your personal protection. The Safety Data Sheet is available upon request from your local Normet representative.