

## Low Viscosity Epoxy Structural Injection Resin

### DESCRIPTION

TamRez 220 is a high modulus, extra low viscosity, epoxy resin designed for injection into non-moving cracks in concrete structures. Its low viscosity will allow maximum penetration into small cracks. TamRez 220 exhibits extremely high strength in its cured state, thereby restoring structural integrity. It is moisture insensitive, allowing for injection into damp cracks. Base resin for the creation of epoxy screeds, grouts, and adhesives. Excellent long pot life for tricky injection projects.

### KEY BENEFITS

- › Excellent adhesion
- › Moisture insensitive
- › Underwater curable, water displacing.
- › Non-crystallising
- › Non-shrink
- › Pumpable
- › Aggregate extendable
- › Potable water certified

### TYPICAL APPLICATIONS

- › Pre-cast segments, panels, culverts and more.
- › Injection of cracks in dry or damp concrete
- › Columns and beams
- › Bolt grouting
- › Priming mineral substrates for subsequent overlays and systems.
- › Joint reinstatement
- › Priming / Binder resin / Adhesive bonding
- › New to old concrete toppings.
- › Concrete repair mortars
- › Contact grouting of de-bonded toppings.

### TECHNICAL DATA

TamRez 220	
Density EN ISO 2811	1.05kg/L
Viscosity EN ISO 3219	150 - 300 mPa·s
Mix ratio (Volume)	2:1
Final cure	7 days
Min./Max. use temperature	10 - 30°C
Pot life (200g) ISO 9514	Pot life 45 min
Compressive strength BS6319:2	70 MPa
Flexural strength BS6319:3	50 MPa
Tensile strength BS6319:7	45 MPa
Adhesion to concrete	> 2.5 MPa Substrate cohesive failure
Maximum exotherm	< 110°C

All technical data stated herein is based on tests carried out under laboratory conditions at 23°C.

### APPLICATION GUIDELINES

As with any epoxy resin system, surface preparation is critical. Concrete surfaces or cracked sidewalls to which this product is to be applied should be cleaned by air or water. This will ensure a superior bond.

For vertical and horizontal face applications, concrete surfaces should be prepared to b/w CSP3-5 for protection and containment coatings. > CSP5 for application subject to shear and tensile forces.

CSP (Concrete Surface Profile according to International Concrete repair Institute guidelines.) It is a standardised measure of the roughness of a concrete surface.

For crack repair, TamRez 220 may be deployed using multiple methods by, gravity fed, injected into surface flanges manually or with specialist injection pumps from low to high pressure. Subsurface packers can also be used. Cracks b/w 0.1 – 3 mm can be sealed with appropriate equipment and expertise. Contact Normet for further advice.

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For sealing of the surface cracks prior to injection, use TamRez 320 Epoxy Paste.



TamRez 220 may be used as a binder for epoxy screeds, mortars, pastes and grouts. We would recommend that a mix ratio of 4 parts (by weight) of fine clean kiln dried sand is mixed with 1 part (by weight) of TamRez 220 to form a non-slump site mixed epoxy mortar. Prime using neat epoxy prior to extending into mortars and place wet in wet. If the application cannot be applied immediately, sand seeding / broadcasting with 0.3 - 0.5 mm washed dried quarts sand should be done for additional grip and bond. Overcoating times still apply.

New to Old Concrete toppings and mortar: Apply to concrete substrates @ 2 - 3 m<sup>2</sup> per mixed litre. Pour concrete topping when tacky, 1 - 2 hours.

Adhesive bonding: Prime concrete surface separately to bonding coat. Prime @ 2 m<sup>2</sup> per mixed litre. Squeegee or roller application. Bond coat after the initial primer layer is tack free, 4 - 12 hours, @ 3 - 4 m<sup>2</sup> per mixed litre. Porous materials can be laid in when wet or tacky. Non-porous materials should be applied when tacky.

Note: We recommended TamRez 220 be conditioned to appropriate temperatures for > 24 hours prior to application. It is particularly important for application and substrate temperatures below 15°C and above 30°C.

For further information on mixing and application techniques, please contact your local Normet representative.

### Subsequent Finishes / Ongoing Maintenance

Coating systems in epoxy, polyurethane, poly-aspartic, polyurea and many other systems (testing is strongly advised) should be applied within 24 - 36 hours. If outside this window, the coating must be thoroughly abraded and lightly solvent wiped using suitable solvent. Allow suitable flash time prior to application (typically 10 - 30 mins)

Do not apply to surfaces with standing or ponding water. Damp surfaces for topical applications should be scrubbed in for best results when damp.

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

### PACKAGING

TamRez 220 is available in two components, 15 kg and 30 kg kits.

### STORAGE

TamRez 220 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 220 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.