



# Epoxy Injection Resin Solutions

For Concrete Crack Repair

## Introduction

ZRETE epoxy injection resin systems offer a proven method for repairing cracked concrete. By injecting low-viscosity, two-component epoxy into fissures, these materials restore structural integrity, ensure waterproof sealing, and prevent further deterioration of reinforced concrete structures.

## Key Benefits

- Deep penetration (<30 mPa·s) for hairline cracks (~0.1 mm).
- High compressive strength (40–70 MPa) restoring load capacity.
- Excellent waterproofing to prevent rebar corrosion.
- Non-shrink, chemical resistant, and long-term durable.
- 30+ min pot life allows safe, low-pressure injection.

## Typical Applications

- Bridge & Building Cracks — beams, columns, slabs.
- Dams & Water Containment — spillways, tanks, reservoirs.
- Tunnels & Underground Works — linings, leak control.
- Foundations & Basements — structural stabilization, seepage sealing.
- Industrial & Marine Structures — damp or chemical environments.

## Epoxy Injection Resin Product Range

Product	Viscosity (mPa·s)	Compressive Strength (MPa)	Application Scenario	Suitable Crack Width
HP-1	<30	≥50	Hairline cracks in bridges, slabs	0.1–1.5 mm
HP-2	<200	≥70	Fine-to-medium cracks in dams, piers	0.2–3 mm
HP-3	<30	≥70	Hairline cracks in dams, power plants	0.1–1.5 mm
HP-4	<200	≥40	Cracks in tunnels, basements	0.2–3 mm
JGN804	<100	≥50	General crack injection, long pot life	0.1–1.5 mm
JGN804A	<100	≥64	Marine & industrial environments	0.1–1.5 mm

## Conclusion

ZRETE epoxy injection systems deliver reliable, high-performance repair solutions for concrete structures. Selecting the right formulation ensures permanent bonding, effective sealing, and long-term protection. Contact Sino-Sina for expert guidance and tailored recommendations for your projects.

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