ARDEX CE 320

Single Component Catalysed PU Injection Resin

Ready-to-use, single-component

Rapid moisture-triggered reaction

Closed-cell foam structure

High expansion capability

Suitable for seawater and saline groundwater exposure

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ARDEX CE 320

Single Component Catalysed PU Injection Resin

DESCRIPTION

ARDEX CE 320 is a moisture-reactive, single-component hydrophobic polyurethane injection resin formulated for the rapid sealing of active water ingress in concrete and underground structures. It is designed to provide consistent site performance without the need for additional catalyst dosing or on-site mixing adjustment. Upon contact with water, ARDEX CE 320 expands to form a closed-cell foam that helps block leakage paths, fill irregular voids and resist water re-entry under high hydrostatic pressure. Its formulation is suitable for challenging leakage conditions, including gushing water, seawater and saline groundwater exposure, where fast response, controlled application and durable sealing performance are required.

FEATURES

- Single Component
- High Foaming factor
- Excellent resistance and durability
- Cures inert, non-toxic permanent seal
- Stops leaks fast and effectively

RECOMMENDED USES

- Tunnels
- Basements
- Retaining walls
- Ground anchors
- Ground stabilisation
- Concrete foundations
- Marine and Coastal Infrastructure

SURFACE PREPARATION

Identify the leakage path and confirm the injection zone before drilling. Select packers suitable for the crack width, substrate thickness and expected injection pressure. Drill holes to suit the selected packer diameter, generally at an angle of approximately 45° so that the drill path intersects the crack or water-bearing void within the concrete section.

As a guide, the drilling depth should reach approximately half of the concrete member thickness. The set-out distance from the crack should be adjusted to suit the substrate thickness and leakage condition, with staggered drilling recommended where cracks are irregular, angled or not clearly visible from the surface. Typical packer spacing may range from 150 mm to 900 mm depending on crack size, water flow, concrete condition and required foam coverage. Install the injection packers firmly into the drilled holes and tighten sufficiently to prevent movement or leakage around the packer during pressure injection.

APPLICATION

Where practical, pre-flush the crack or void with clean water to remove loose particles and confirm the leakage path. The presence of moisture within the injection zone also assists the reaction of ARDEX CE 320 and promotes foam formation during application.

Before use, condition the product to the recommended site temperature range and shake the sealed container thoroughly to ensure uniformity. ARDEX CE 320 is applied as supplied and does not require catalyst addition. Inject progressively using suitable polyurethane injection equipment, starting from the lowest or widest point of leakage where applicable, and continue until water discharge is controlled or foam appears at the adjacent packer or crack face.

Move to the next packer and repeat process. Continue until crack is full and has been adequately sealed.

Monitor the effectiveness of the work and allow to settle for at least 48 hours before returning to site and completing additional injection if required.

After the resin has reacted and water ingress has been stabilised, remove packers where appropriate and reinstate the drilled holes using a compatible ARDEX repair mortar or approved plugging material. Clean pumps, hoses and accessories immediately after use with a suitable polyurethane injection cleaner to avoid resin build-up and maintain equipment reliability.

LIMITATIONS

- Do not apply when working conditions are below 0°C.

PACKAGING

ARDEX CE 320 is supplied in 10 kg metal pails.

STORAGE AND SHELF LIFE

ARDEX CE 320 is sensitive to moisture and must be kept sealed in its original container in a dry area. Store between 5°C and 40°C. A shelf life of 12 months from the date of manufacture can be expected when stored under the recommended conditions.

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TECHNICAL DATA	
Testing Parameters	**Results**
Appearance	Brownish liquid
Viscosity at 25°C, Brookfield DV SP.260 rpm	400 – 800 MPa·s
Density	1.10 – 1.20
Foam rate with 10% water at 35°C	10 – 15 times
Start of reaction with 10% water at 35°C	30 – 45 seconds

SAFETY PRECAUTIONS

ARDEX CE 320 should not come into contact with the skin, eyes or be swallowed. Ensure adequate ventilation and inhalation of the dust. Wear suitable gloves, goggles and other protective clothing. The use of barrier creams can provide additional skin protection. When working in confined areas suitable respiratory equipment must be used. In case of contact with skin, rinse with plenty of clean water then wash with soap and water. In case of contact with eyes, rinse immediately with plenty of clean water, then seek medical attention without delay. If swallowed, seek medical attention straight away, do not induce vomiting. The Safety Data Sheets (SDS) is available at www.ardex-quicseal.com

DISCLAIMER

The technical datasheets are based on the latest information and given in good faith and represent the best of our knowledge and experience at the time of printing. They are primarily offered for user's consideration and evaluation. It is the responsibility of the user to conduct their own tests to validate the suitability of the products. It is also the responsibility of the user to ensure that the products are used and handled correctly and in accordance with any applicable standards, the product instructions and recommendations and only for the uses they are intended. As we have no control over site conditions and the execution of the work, we accept no liability for any loss or damage which may rise as a result thereof. We also reserve the right to update the information at any time without prior notice to you to reflect our ongoing research and development program.

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