



DURAL AQUA-FIL

HYDROPHILIC POLYURETHANE GROUT

DESCRIPTION

DURAL AQUA-FIL is a single-component hydrophilic polyurethane compound that is injected in concrete and other sound natural substrates to stop water from entering into occupied or unwanted places. **DURAL AQUA-FIL** follows the path of water into fine cracks and fissures within the substrate. **DURAL AQUA-FIL** forms a water tight seal within cracks and joints, while providing good chemical resistance.

PRIMARY APPLICATIONS

- Leaking cracks and joints
- Mines & tunnels
- Water & wastewater treatment facilities
- Sewers & manholes
- Repair of faulty or misplaced waterstops
- Below grade walls subject to high water tables

FEATURES / BENEFITS

- Tenacious bond to wet and dry substrates
- Seeks out water within the crack and all its fissures
- Provides good chemical resistance
- Excellent elongation to handle moving cracks and joints
- Can seal small and large cracks within concrete and other natural substrates

TECHNICAL INFORMATION

TYPICAL PROPERTIES - LIQUID	RESULTS	TEST METHOD
Viscosity @ 25°C	500 cps	ASTM D 1638
Specific Gravity	1.16	-
Physical State	Liquid	-
Color	Pale Yellow	-

TYPICAL PROPERTIES - CURED	RESULTS	TEST METHOD
Density	80 kg/m ³	ASTM D 1622
Elongation	360%	ASTM D 638
Tensile Strength	2.3 MPa	ASTM D 638
Shear Strength	0.10 MPa	ASTM C 273

TYPICAL REACTION PROFILE	
Initial Foam	30 seconds
Reaction Time	6 minutes

PACKAGING/YIELD

DURAL AQUA-FIL is packaged in 20L buckets and 200L drums. **DURAL PUMP RINSE** is packaged in 20L buckets only.

SHELF LIFE

All materials have a 3 year shelf life in their original, unopened packages. Products are moisture sensitive and need to remain in airtight containers.

DIRECTIONS FOR USE

Surface & Crack Preparation: To ensure the project is completed properly, clean the exterior of the surface so that the full extent of the crack or joint can be seen. This will aid in proper hole drilling. Start by determining the thickness of the concrete substrate that will be repaired. This will be used in the spacing of packers. Starting at the lowest point of the crack; triangulate the position of the first hole to be drilled so it will intersect the crack at a 45° angle, half-way through the thickness of the concrete. Drill a 16 mm hole in this position and ensure that the bit used is long enough to pass through the crack. Drill the next hole in the same manner on the opposite side of the crack. The spacing between holes should be equal to the thickness of the concrete. Continue to drill holes in the same manner, moving up the crack until the entire length of the crack or joint has an equal chance of receiving the grout. Install 16 mm injection packers into the drilled holes and tighten. Inject water through the packers to make sure they don't leak around the sides. This water injection will also flush out any dust and debris that is in the crack due to the drilling process.

Mixing: Prior to injecting DURAL AQUA-DAM LV, stir the material and the accelerator. Do not use high speed mixing equipment and avoid whipping air into the product.

Placement: Once the injection packers have been set and the drilled holes and crack have been flushed out with water, the injection of the material can begin. Start at the lowest point of a vertical crack and work upwards. Pump DURAL AQUA-DAM LV into the packer until foaming material comes out the face of the crack and starts to approach the next packer. On a horizontal crack, start at the end that was first installed and flushed with water. The more water left in the crack and injection site, the better. Move the injection head to the second packer and repeat for the entire length of the crack. A standard airless paint pump can be used for this application. Typical injection pressure into cracks is 1.4-20 MPa, depending on the width and depth of the crack. For large cracks and joints, oakum rope or a similar open celled structure device can be soaked in DURAL AQUA-DAM LV and placed into the crack or joint. Once the DURAL AQUA-DAM LV has cured, the packers can be removed or cut-off, flush with the surrounding surface. Any grout cured outside of the face of the crack can be cut-back with a margin trowel or similar scraping tool. The packer holes can then be filled in with Euclid Chemical's Speed Plug hydraulic cement and finished as desired.

CLEAN UP

Use all appropriate protective equipment. Avoid contact with the active grout. Use DURAL PUMP RINSE to clean out the lines of the injection equipment. DURAL PUMP RINSE can be left in the lines as a primer, prior to the next project. Be sure to expel all DURAL PUMP RINSE from the lines prior to the next grouting job, or it will affect the curing capability of the grout.

PRECAUTIONS / LIMITATIONS

- Colder temperatures will affect the viscosity and setting times of the product.
- Avoid exceeding 32°C when warming product.
- Water mixed with DURAL AQUA-FIL must be in the pH range of 3-10.
- Store material in moisture-free packaging. Atmospheric moisture can cause a foam "head" on the product inside of the bucket. Remove the foam and the remaining material can be used.
- In all cases, consult the Safety Data Sheet before use.

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