

# DURAL AQUA-DAM LV

Low Viscosity, Hydrophobic Polyurethane Grout



EUCLID CHEMICAL

CHEMICAL INJECTION PRODUCTS

DURAL AQUA-DAM LV

## DESCRIPTION

**DURAL AQUA-DAM LV** is a low viscosity, hydrophobic polyurethane mono-component injection resin that is injected into hairline cracks in concrete and other sound substrates to stop water from entering into occupied or unwanted places.

The reaction time of the **DURAL AQUA-DAM LV** is controlled through the use of its accelerator, known as **DURAL AQUACCELERATOR**. **DURAL AQUA-DAM LV** forms a water tight seal within the substrate that remains even if the water subsides. Without water the product does not expand, it does not form any foam.

## PRIMARY APPLICATIONS

- Sealing fine cracks and joints
- Sewers & manholes
- Can be used in porous soils as a stabilizer
- Below grade walls subject to high water tables
- Wastewater treatment facilities

## FEATURES/BENEFITS

- Low viscosity for smaller cracks
- Fast reaction time with added accelerator
- Bonds to wet and dry substrates
- Needs very little water to react and cure
- Remains active when the water subsides
- Excellent elongation to handle moving cracks and joints

## TECHNICAL INFORMATION

### Physical Properties (25°C)

Typical Properties	DURAL AQUA-DAM LV	DURAL AQUACCELERATOR
Viscosity	10 mPas	10 mPas
Specific Gravity	1,21 kg/liter	1,10 kg/liter
Physical State	Liquid	Liquid
Color	Dark Color	Amber coloured transparent

Typical Reaction Profile	RESIN + ACCELERATOR 2%+WATER 10%	RESIN + ACCELERATOR 5%+WATER 10%	RESIN + ACCELERATOR 5%
Expansion Factor	15-25 times of initial Volume	15-25 times of initial Volume	The product remains liquid for about 8 hours; the formation of a thin and hard crust on the surface does not affect the workability of the product self.
Initial Foam	30 - 45 second	<10 seconds	
Reaction Time	3 - 4 minutes	20 - 30 seconds	
Appearance	Semi flexible, cell-closed foam, yellowish color	Semi flexible, cell-closed foam, yellowish color	
Application Temperature: +3°C / +50°C    **Service Temperature : -30°C / +80°C			

## PACKAGING

Polyurethane Resin, **DURAL AQUA-DAM LV** 20 kg pails  
Accelerator, **DURAL AQUACCELERATOR** 1,0 kg cans

## SHELF LIFE

All materials have a 1 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 knowing the thickness of the concrete substrate that is to 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 that 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**, properly stir the material and the accelerator. Do not use high speed mixing equipment, for that will "whip" air into the product. Pour the appropriate amount of **DURAL AQUACCELERATOR** into the **DURAL AQUA-DAM LV** and mix on slow speed for a minute or two, to ensure the accelerator is fully mixed in. The standard mixing ratio should be used in most instances. Do not go below the minimum mixing amount, for the material will struggle to react, especially in colder weather. Do not add more than the maximum amount of accelerator for the material will face a great risk of shrinking, thus allowing water to pass through the crack or joint again.

**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 until you have moved 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. Once the **DURAL AQUA-DAM LV** has cured, the packers can be removed or cut off, flush with the surrounding surface. The grout that has 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 EGECRETE Yapı Kimyasalları's Speed Plug hydraulic cement and finished as desired.

## CLEAN UP

Use all appropriate protective equipment. Avoid contact with the active grout.

## PRECAUTIONS/LIMITATIONS

- Colder temperatures will affect the viscosity and setting times of the product.
- Avoid exceeding 32°C when warming product.
- Water used to react **DURAL AQUA-DAM LV** must be in the pH range of 3-10.
- Store material in moisture free packaging. Atmospheric moisture may cause a foam "head" inside of pail. This can be peeled off and the material below can still be usable.
- In all cases, consult the Material Safety Data Sheet before use.

Rev.2.22