



# DURAL LPL MV - IN

EXTENDED WORKING TIME, HIGH MODULUS EPOXY BONDING AGENT

**EUCLID CHEMICAL**

## DESCRIPTION

DURAL LPL MV - IN is a two-component, moisture insensitive, high strength epoxy adhesive and binder for numerous applications. This high modulus, medium viscosity epoxy resin is the perfect solution for bonding new, plastic concrete to existing concrete slabs and steel. DURAL LPL MV - IN (Long Pot Life) provides extended working time versus conventional epoxy bonding agents.

## PRIMARY APPLICATIONS

- Bonding fresh concrete to hardened concrete
- General adhesive for concrete and masonry
- Repairs and extensions in buildings roads, floors

## FEATURES/BENEFITS

- Provides exceptional adhesion for both horizontal and vertical surfaces
- Easy to use preweighed pack system, medium viscosity
- Moisture insensitive
- Longer working time, even in warm conditions
- High bond strength adhesive

## TECHNICAL INFORMATION

Material properties tested under laboratory conditions @ 27°C, 50% RH.

PROPERTY	RESULT
Appearance	Light Grey colour
Specific Gravity	1.15 to 1.20 g/cc
Pot life	2 – 3 hrs @ 27°C
Overlay time	6 hrs @ 27°C
Compressive Strength	50 MPa @ 7 Days (ASTM C 695 50mm cubes)
Flexural Strength	35 MPa @ 7 Days (ASTM D 790)
Tensile Strength	20 Mpa @ 7 Days (ASTM D 638)
Bond Strength	10 Mpa @ 7 Days (ASTM D 882)

## PACKAGING

DURAL LPL MV - IN is packaged in 5 Kg. The mix ratio is 0.65:0.35 by wt.

## SHELF LIFE

12 months in original, unopened containers

## SPECIFICATIONS/COMPLIANCES

- Complies with ASTM C 881-10 Type II, Grade 2, Class C, E and F.

## COVERAGE / YIELD

- The coverage rate as a bonding agent is approximately 2.0 to 2.5 m<sup>2</sup> /kg, depending upon the texture of the existing slab.
- Note: Coverage rates are approximate. Actual coverage depends on temperature, texture, and substrate porosity.

## DIRECTIONS FOR USE

**Surface Preparation:** The surface must be structurally sound, dry, clean and free of grease, oil, curing compounds, soil, dust and other contaminants. Surface laitance must be removed. Concrete surfaces must be roughened and made absorptive, preferably by mechanical means, and then thoroughly cleaned of all dust and debris. If the surface was prepared by chemical means (acid etching), a water/baking soda or water/ammonia mixture, followed by a clean water rinse, must be used for cleaning, in order to neutralize the substrate. Allow substrate to dry before application. Route cracks and blow dust/debris from them with oil-free compressed air. Following surface preparation, the strength of the surface can be tested if quantitative results are required by project specifications. An elcometer or similar tensile pull tester may be used in accordance with ASTM D4541, and the tensile pull-off strength should be at least 1.7 MPa. When coating steel, all contamination should be removed and the steel surface prepared to a "near white" finish (SSPC SP10) using clean, dry blasting media.

**Mixing:** Mix DURAL LPL MV - IN using a low-speed drill and a mixing paddle. Pre-mix Part A and Part B separately for approximately 1 minute each. Transfer Part B pack in Part A Container and then mix thoroughly for 3 to 5 minutes until a uniform appearance is obtained.

Scrape the bottom and sides of the containers at least once during mixing. Do not scrape bottom or sides of the container once mixing operations have ceased; doing so may result in unmixed resin or hardener being applied to the substrate. Unmixed resin or hardener will not cure properly. Do not aerate the material during mixing. To keep aeration to a minimum, the recommended mixing paddles are #P1 or #P2 as found in ICRI Guideline 320.5R-2014.

**Application:** Application and surface temperatures should be at least 16° C and rising.

**Bonding fresh concrete to hardened concrete:** Apply by brush, roller, or squeegee to the prepared, existing concrete substrate. Place fresh concrete onto the DURAL LPL MV - IN while it is still tacky. The open time is typically 5 to 6 hours at 27°C. The open time is reduced at warmer temperatures. If the DURAL LPL MV - IN loses tackiness or exceeds open time, abrade the surface of the epoxy, wipe surface clean, re-apply DURAL LPL MV - IN, and proceed. **DO NOT PLACE CONCRETE OVER DRIED EPOXY.** Bonding hardened concrete to hardened concrete: Apply mixed DURAL LPL MV - IN by spatula, brush, or trowel. Ensure the surfaces to be joined have uniform coatings of DURAL LPL MV - IN. For optimum results, the bond line should not exceed 3.2 mm. Join surfaces and hold or clamp firmly until the epoxy gels. Ideally, a small amount of adhesive should exude from the joint. Surfaces must be mated while the adhesive is still tacky.

## CLEAN-UP

- Clean tools and application equipment immediately after use with EUCO SOLVENT or Acetone while still wet.

## PRECAUTIONS/LIMITATIONS

- Store at temperature between 10° C to 32° C
- Mix mechanically for 3 to 5 minutes.
- Do not thin.
- Protect from moisture.
- Surface and ambient temperatures must be 16° C and rising at time of use.
- In all cases, refer the Safety Data Sheet before use.

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