

CONCRESlVE[®] 1401 (Concresive 1001 LPL)

Long pot life bonding agent

DESCRIPTION

CONCRESlVE 1401 is a two component solvent free epoxy adhesive for bonding fresh concrete to set concrete as well as set concrete or mortar to itself. The two parts are distinctly coloured to facilitate proper mixing which on correct mixing in the specified ratio, yields a high performance bonding agent.

FIELDS OF APPLICATION

- Bonding fresh concrete to set concrete especially at construction joints.
- Bonding cementitious repair mortars to concrete or mortar substrates

FEATURES & BENEFITS

High elastic modulus	Effective transfer of stresses at bond interface.
Long pot life and setting time	Allows sufficient time for necessary operations at site before placing the concrete or mortar to be bonded
Excellent bond	Renders the bonded parts monolithic. Minimises water ingress through cold joints.
Good bond to damp surfaces	Advantage while bonding fresh concrete or mortar.
Pre-proportioned	Avoids batching errors
Pigmented components	Helps in obtaining uniform mixing

TYPICAL PERFORMANCE DATA

7 days cure

Tensile strength (ASTM D638)	: >24 N/mm ²
Tensile elongation (ASTM D638)	: 2.5%
Slant shear bond strength (ASTM C1042)	: 35 N/mm ²

PROPERTIES

	Part A	Part B
Supply form	liquid	liquid
Colour	White	Black
Viscosity @25°C	12,000 cps	350 cps
Density	1.37 kg/L	0.96 kg/L

Mixed material

Mix ratio Part A : Part B (by Vol)	: 2 : 1
Colour	: Grey
Viscosity at 25°C	: 2,700 cps
Heat deflection temp	: 53° C
Application temperature range	: 10 - 40°C
Minimum cure temperature	: 5°C
Pot life at 20°C	: 75 minutes

APPLICATION

Surface Preparation

Correct substrate preparation is critical for optimum performance. Surfaces should be structurally sound, clean and free from loose particles, oil, grease, or any other contaminants.

Remove oil grease and wax contaminants by scrubbing with industrial grade detergent or degreasing compounds followed by mechanical cleaning.

Cement laitance, loose particles, mould release agent, curing membrane, and other contaminants must be removed from the surface by wet grit blasting, high pressure water jetting (approximately 150 bars) or such other effective methods.

If bonding fresh concrete to set concrete, best results can be obtained by maintaining the slump of fresh concrete below 75 mm.

Other applications

For epoxy plate bonding, fix injection nipples into the pre-drilled holes on the plate and seal all the gaps around the plate using CONCRESlVE 1438 or CONCRESlVE 1488. For grouting to fill voids behind tiles, stone facade etc., drill holes to reach the suspected void and fix nipples. At least 2 holes should be drilled to grout each cavity.

Mixing

Mechanical mixing is necessary. A slow speed (600 rpm) drill, fitted with a paint mixer or a rod type paddle, is recommended.

Mix only the quantities that can be used within the pot life.

Stir individually and then measure out Part A and Part B precisely in the proper volumetric ratio into a clean, dry pail for subsequent mixing. Ensure that the remaining contents of each container are not contaminated. Mix the components together until the streaks of black and white disappear to yield a homogeneous grey mix.

Placing

CONCRESlVE 1401 can be applied by brush, roller or trowel. Spray application should be carried out only by skilled operators using a special metering, mixing and spraying equipment. Apply a thin coat on the surface in a continuous film. Avoid formation of puddles.

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The Chemical Company

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While for most bonding applications presence of a few pin holes in the coating does not affect the performance, when bonding a repair mortar on to a chloride contaminated substrate, a hole-free coating can also act as a barrier to the diffusion of chloride ions in to the repaired area.

CLEANING

Clean the tools and equipment first with rags, then wipe off using a suitable solvent such as acetone or methylene chloride before the bonding agent sets.

ESTIMATING DATA

Actual consumption of **CONCRESlVE 1401** depends upon the surface absorption, roughness, loss and wastage.

On dense smooth surfaces, 1 litre of **CONCRESlVE 1401** will cover approximately 2.5 – 3.5m². Therefore, material consumption on such surfaces will be approximately 0.3 L/m².

PACKAGING

CONCRESlVE 1401 is available in 1 L and 5 L packs.

SHELF LIFE

CONCRESlVE 1401 can be stored in tightly sealed original packing for 12 months, below 34°C.

PRECAUTIONS

Health: **CONCRESlVE 1401** contains certain chemicals which can cause skin irritation if exposed and respiratory reaction if inhaled. Wear gloves, masks and use barrier creams while handling the product. Wash thoroughly after handling.

Should skin contact occur wash immediately with soap and water, or an effective hand cleaner.

In case of accidental eye contact wash with copious quantity of water and seek medical help immediately. If ingested, do not induce vomiting. Consult doctor immediately.

The vapours of solvents used for cleaning can be irritating. It is therefore recommended that cleaning is done in well ventilated areas.

Fire: Do not smoke while handling the product.

Flash point : 90°C.

For detailed Health, Safety and Environmental recommendations, please consult and follow all instructions on the product Material Safety Data Sheet.

AN/CS1001LPL/v2/310309

STATEMENT OF RESPONSIBILITY

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