

# CONCRESlVE® 1438

General purpose, epoxy bonding paste

## DESCRIPTION

**CONCRESlVE 1438** is a two parts; epoxy resin based bonding paste for general purpose bonding.

The two parts are distinctly coloured to facilitate proper mixing - a white coloured Part 'A' and a black coloured Part 'B', which on correct mixing in the ratio 2:1 (A:B) by volume, yields a smooth bonding paste.

## FIELDS OF APPLICATION

**CONCRESlVE 1438** is recommended for use as an adhesive to bond most surfaces used in general construction:

- pinning loose or broken tiles and masonry.
- bonding rubber, plastics, foam and other such flexible materials onto metal, concrete and other rigid materials.
- fairing uneven or very rough surfaces.
- filling gaps, joints and voids.

## FEATURES & BENEFITS

**Non sag gel consistency** Advantage in vertical or overhead applications.

**Bonds to damp surfaces** Avoids expensive surface preparation to achieve completely dry substrates.

**Tough** Tenacious adhesion. Withstands impact loads.

**Different coloured components** Visual indication of correct mixing. Avoidance of blending errors.

**Convenient mix ratio** Easy to proportion during application. Saves time.

## TYPICAL PERFORMANCE DATA

(after 7 days cure)

Tensile strength @ 30°C	: 24 N/mm <sup>2</sup>
Elongation at break (ASTM D638)	: 0.7%
Compressive modulus (ASTM D695)	: 2,750 N/mm <sup>2</sup>
Slant shear strength	: 34 N/mm <sup>2</sup>
Compressive yield strength	: 69 N/mm <sup>2</sup>

## PROPERTIES

	Part A	Part B
Form	Paste	Viscous liquid
Colour	White	Black
Density (mixed)	: 1200 - 1250 kg/L	

Non-sag thickness @ 35°C : 13 mm  
(ASTM D2730)

Heat deflection temperature : 48°C  
(ASTM D648)

Application temperature,  
Minimum : 5°C  
Maximum : 35°C

## Curing properties

	@ 4°C	@ 21°C	@ 35°C
Pot life. (100 g)	120 mins	40 mins	25 mins
Min. open time	5 hrs	3 hrs	2 hrs
Initial cure (AASHTOT- 237)	7 days	1 day	1 day
Cure time (ASTM D695)	21 days	7 days	2 days

## 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 laitence, loose particles, mould release agent, curing membrane, and other contaminants must be removed from the surface by scarifying or gritblasting followed by vacuum cleaning. In case of application on steel surfaces, remove grease and oil with suitable industrial grade cleaning and degreasing compounds. Remove rust and mill scale by gritblasting. Blast steel to white metal followed by vacuuming or blowing clean using oil-free, dry air.

If totally dry surface is impossible to achieve, blow clean any free water from the surface using oil-free air blast. **CONCRESlVE 1438** bonds to damp surfaces though a superior bond is achieved between completely dry surfaces.

### Mixing

Mechanical mixing is necessary. A slow speed (600 rpm) drill with a grout stirrer is recommended.

Ideally, the entire contents of both Part A and Part B containers should be mixed together to avoid batching errors.

However, if part mixing is necessary, stir each component individually and then measure out precisely each component in the simple ratio of 2:1 (A:B) by volume into a clean, dry pail for subsequent mixing. Ensure that the leftover in each container is not contaminated.

Mix Part A and Part B together until the streaks of black and white disappear to yield a homogeneous grey mixture.

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The Chemical Company

# CONCRESlVE<sup>®</sup> 1438

If needed, add dry, graded sand to the mixture and continue mixing for a further 2 minutes to get a lump free mix. Mix only quantities that can be consumed within the pot life of the product to avoid wastage.

## Placing

Apply **CONCRESlVE 1438** within its pot life.

**For bonding** : Trowel apply **CONCRESlVE 1438** to a thickness of 0.8 to 3 mm depending on the job, so as to allow for a small quantity of the bonding paste to extrude out of the bond line when pressure is applied to the two surfaces.

**For deep surface irregularities** : Firmly trowel the sanded bonding paste to fill in the deep irregularities, and finish to a smooth surface.

## Curing

**CONCRESlVE 1438** is self curing. The curing time depends on the ambient temperature, the quantity mixed and paced. At 35°C, it will attain initial cure within 1 day and full cure in 2 days.

## CLEANING

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

## ESTIMATING DATA

Actual consumption of **CONCRESlVE 1438** depends on the sand content, thickness of the coat, surface profile, loss and wastage. Typical coverage for the unsanded mix for a 3 mm thick coat ranges from 0.15 m<sup>2</sup>/L on rough surfaces to 0.33 m<sup>2</sup>/L on smooth surfaces.

Therefore, on smooth surfaces, for a 1 mm thick application, the consumption will be 1.0 L/m<sup>2</sup>.

## PACKAGING

**CONCRESlVE 1438** is available in 1 L and 15 L sets. The components of **CONCRESlVE 1438** are available in the following packaging.

Component	1 L set	15 L set
Part A	0.67 L	10.00 L
Part B	0.33 L	5.00 L

## SHELF LIFE

**CONCRESlVE 1438** can be stored in unopened original packing for 12 months, if stored at a temperature below 35°C.

## PRECAUTIONS

**Health** : **CONCRESlVE 1438** contains certain chemicals which can cause skin irritation if exposed and respiratory reaction if inhaled. Wear gloves, mask 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 a well ventilated area.

**Fire** : Product is combustible. Avoid exposure to naked flame. Do not smoke while handling the product.

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

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