



The Chemical Company

# CONCRESI<sup>®</sup>VE 1380

## Low Viscosity Epoxy Injection Resin Improved Standard

### Description of Product

CONCRESI<sup>®</sup>VE 1380 is a two component, solvent-less, low viscosity liquid adhesive for pressure injection grouting and other methods of application.

### Fields of Application

- For structurally rebonding cracked concrete sections
- For filling porous or honeycombed concrete or grout
- For anchoring bolts, dowels and reinforcing bars
- For grouting areas pre-packed with aggregate to form bearing supports
- For reinstating failed floor screeds by injection or flooding

### Features and Benefits

- Excellent penetration of fine fissures
- High heat deflection temperature (HDT) providing increased resistance to creep and stress relaxation
- Fast cure rate
- Excellent adhesion even under adverse conditions, such as combination of low temperature and moisture

### Technical Data/Typical Properties

Composition	Two component, low viscosity liquid
Mix Ratio, A:B	by volume - 2:1 by weight - 100:44
Application temperature range	4°C-37°C
Minimum cure temperature	0°C
Colour	
Part A	Clear amber
Part B	Black
Mixed	Black
Density at 25°C, kg/m <sup>3</sup>	
Part A	1160
Part B	980
Mixed	1100

Viscosity, CPS at 4°C	
Part A	7700
Part B	1200
Mixed	4400
Viscosity, CPS at 25°C	
Part A	640
Part B	190
Mixed	350
Viscosity, CPS at 37°C	
Part A	260
Part B	75
Mixed	150
Pot life (60g mass)	
at 20°C	25 mins
at 29°C	19 mins
at 37°C	8.5 mins

### Properties of cured material at 25°C

Tensile Strength (ASTM D638)	62 Nmm <sup>2</sup>
Tensile Elongation (ASTM D638)	2.5%
Flexural Strength (ASTM D790)	82.7 Nmm <sup>2</sup>
Flexural Modulus (ASTM D790)	4137 Nmm <sup>2</sup>
Compressive Yield Strength (ASTM D695)	110 Nmm <sup>2</sup>
Compressive Modulus (ASTM D695)	1585 Nmm <sup>2</sup>
Heat Deflection Temperature (ASTM D648)	57°C

### Adhesive Properties Slant Shear Strength - AASHTO T-237

Cure Condition	Strength	Type of Failure
3 days at 4°C wet	20 Nmm <sup>2</sup>	80% Adhesive Failure
7 days at 4°C wet	31 Nmm <sup>2</sup>	100% Concrete Failure
1 day at 25°C dry	34.5 Nmm <sup>2</sup>	No Failure

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#### Curing/After Treatment

Gel time in joints between 50cm thick concrete blocks, approximately 30 x 30 cm, at 25°C

Gap width, mm	Time to gel, min
6	82
12	30
20	25
25	18
Thin Film (130 um) Tack Free Time at 25°C	3 hours
Thin Film Full Cure Time at 25°C	3 days
Thin Film Full Cure Time at 4°C	6 days

Properties listed in this bulletin are typical and descriptive of the product and should not be used for specification purposes

#### Application Procedure

##### Crack Injection

Application of low viscosity injection resins is a skilled operation requiring trained operatives.

As site conditions and application requirements differ markedly from site to site these should be agreed between the applicator and the supervising engineer/client.

##### As a screed repair system

Because of the very low viscosity and low solvent content of CONCREACTIVE® 1380 this system can be used as an impregnating flood coat to improve the soundness of friable screeds.

Mix Component A and Component B in the ratio 2:1 by volume for approximately 3 minutes using a slow speed drill and paddle. Pour the mixed material on the clean, prepared screed and spread evenly with a rubber squeegee or similar.

Continue operation until no further resin is absorbed by the screed.

It is always advisable to perform on site trials prior to commencement of the project to ensure the feasibility of the repair method to the satisfaction of the client and to determine approximate material usage.

#### Packaging

CONCREACTIVE® 1380 is available in 16.4 kg units.

#### Storage

Store in sealed containers at temperatures below 32°C.

#### Shelf Life

Minimum 18 months in sealed containers.

#### Watchpoints

This bulletin may not accompany the product when sold. For specific hazard warnings and first aid instructions. Read the container warning labels and the materials safety data sheet carefully.

Mixed components contain chemical compounds which may cause allergic skin and respiratory reaction. harmful if swallowed. do not get in eyes, on skin or on clothing. Use only with adequate ventilation. Wash thoroughly after handling.

The use of a barrier cream is recommended. Clean rubber gloves or disposable polyethylene gloves should always be worn. Should skin contact occur, wash immediately with soap and water.

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#### **Health and Safety**

\*For full information on Health and Safety matters regarding this product the relevant Health and Safety Data Sheet should be consulted.

The following general comments apply to all products.

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs, (which may also be tainted with vapour until the product is fully cured and dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek medical attention. Keep away from children and animals. Reseal containers after use.

#### **Solvent Based Products**

Use in well ventilated areas; avoid inhaling. Suitable respiratory equipment may be needed, eg when spraying. Can cause skin, eye irritation. Wear protective eye shields and gloves during use. Do not smoke or allow sparks or naked lights when stored or in use.

#### **Powder Products**

Should be handled to minimise dust formation; use light mask if excessive dust unavoidable. Cement powders when wet or moistened can cause burns to skin and eyes which should be protected during use.

#### **Resin Products**

Can cause irritation, dermatitis or allergic reaction. Use protective equipment particularly for skin and eyes. Use only in well ventilated areas.

#### **Spillage**

Chemical products can cause damage; clean spillage immediately.

#### **Disclaimer:**

This information and all further technical advice is based on our present knowledge and experience. However, it implies no liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. In particular, no warranty, whether express or implied, or guarantee of product properties in the legal sense is intended or implied. We reserve the right to make any changes according to technological progress or further developments. The customer is not released from the obligation to conduct careful inspection and testing of incoming goods. Performance of the product described herein should be verified by testing, which should be carried out only by qualified experts in the sole responsibility of a customer. Reference to trade names used by other companies is neither a recommendation, nor does it imply that similar products could not be used.

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