



The Chemical Company

CONCRESlVE[®] 1444

Thixotropic paste epoxy binder and adhesive

DESCRIPTION

CONCRESlVE 1444 is a two pack, thixotropic epoxy binder which is ideal as a structural adhesive, bonding agent and binder for epoxy mortars. It is supplied as a solvent-free, smooth, non-sag paste.

CONCRESlVE 1444 is suited to applications in the water treatment industry and is approved for contact with potable water. Tested to AS 4020.

RECOMMENDED FOR

- Application to horizontal or vertical surfaces to fill rough surfaces to 5mm
- Use as a general purpose adhesive for bonding and or repairing most materials
- Structural bonding BASF repair mortars and concrete on vertical surfaces
- Bonding metal to metal, concrete, timber etc.
- Patching and repairing cracks and defects in concrete and masonry with clearances of up to 5mm
- Mix with aggregates to provide a repair mortar or trowelable skim coat
- Minor underwater repairs

FEATURES AND BENEFITS

- **High bond strength** – Tenacious adhesion to correctly prepared surfaces, including concrete, steel & timber.
- **Excellent chemical resistance** – maximum protection against penetration or attack by water, mineral acids, oils, fats, fuels and strong alkali and salt solutions
- **High early and ultimate strengths** – a hard, tough adhesive which sets rapidly which helps to reduce production shutdown.
- **Non shrink** – suitable for use in critical, precision applications.
- **Easy to use** – on horizontal, vertical or overhead surfaces because of it's paste consistency.
- **Solvent free**
- **Can be applied to wet and damp surfaces**
- **Approved AS/NZS 4020:2002 for contact with potable water**
- **Smooth grease like consistency**

Chemical resistance

CONCRESlVE 1444 resists most common organic and inorganic acids in diluted form. Also resistant to alkalis, water, oils, grease, etc. Chemical resistance depends on the chemicals involved, their concentration, temperature and degree of exposure. Good housekeeping practices such as immediate clean up of all spillage will greatly extend the service life.

PERFORMANCE DATA

Typical – binder only at 23°C

	Result
Compressive Strength (24 hrs)	56 MPa
Compressive Strength (7 days)	92 MPa
Compressive Strength 1:1 with F2 Filler	88 MPa
Compressive Strength 1:2 with F2 Filler	78 MPa
Tensile Strength (7 days)	60 MPa
Bond Strength (7 days):	
- Concrete to concrete Concrete fails at	2.9 MPa
- Steel to steel	16 MPa
Compressive Modulus (7 days)	3.0 GPa
Heat Deflection Temperature	72°C

PROPERTIES

	Part A	Part B	Mixed
Supply form	thick paste	thin liquid	thixotropic paste
Colour	light grey	clear	light grey
Mix ratio (v/v)	3	1	
Specific gravity			1.13
Volume solids			100%
Application temperatures			Min. 5°C Max. 35°C

APPLICATION

Surface Preparation

To obtain maximum performance:

- 1) Concrete should be well cured, at least 28 days old and have a minimum compressive strength of 25MPa.
- 2) Clean surface thoroughly to remove all contaminants such as dirt, oil, grease, wax, rust and loose coatings. Remove laitance and roughen surface to ensure good bonding by chipping, scabbling, grit blasting or acid etching. Allow to dry thoroughly, for maximum absorption and adhesion.
- 3) Shot or track-blast to expose firmly held substrate.

Mixing

Proportion part kits accurately, mix only what can be used in less than 30 minutes. Thoroughly stir Part A, add Part B (3:1 parts by volume respectively) and blend thoroughly using a slow speed mixer fitted with a suitable paddle, until a streak free uniform colour is achieved.

Method of use

As an adhesive - Immediately spread the mixture over the surface and promptly place other surface to be adhered into tight contact. Use clamps where necessary until hardened.



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As a patching mortar – Wipe trowel frequently with a cloth dampened with **Thinner No. 1** to aid finishing. Kiln dried sand or **MASTERTOP F2** aggregate may be added to repair mortar at a thickness greater than 5mm, or where a stiffer mix is required. The maximum aggregate size should approximate to 1/3 of the depth.

As a wet to dry bond coat – On vertical or sloping surfaces, trowel mixed **CONCRECIVE 1444** over prepared surface at 3-4m² per litre depending on surface profile. Mix and apply cementitious material before **CONCRECIVE 1444** “tacks off”. Apply mortar or concrete to **CONCRECIVE 1444** after 40 – 80 minutes, depending on ambient conditions. Applied mortar or concrete should be cured as per manufacturers instructions.

As a skim coat – On vertical surfaces trowel mixed **CONCRECIVE 1444** over prepared surface to fill the pin holes, profile etc. Overcoat with **MASTERTOP 1080** or similar as required. **MASTERTOP F2** or alternative fillers may be mixed into **CONCRECIVE 1444** to achieve the desired result depending on thickness and finish required.

CURING

Cure time will vary depending on the quantity mixed and placed. **CONCRECIVE 1444** is tack free in approximately 6 hours. Full strength is attained after 7 days at 23°C – longer at lower temperatures. Cure may be hastened by sustained gentle heating (to a maximum of 70°C).

POT LIFE

Pot life will vary depending on ambient temperature and the quantity mixed. **CONCRECIVE 1444** has a pot life of approximately 30 minutes at 23°C.

CLEANING

Use **Thinner No. 1** to clean equipment and tools before the material hardens.

ESTIMATING DATA

One litre of **CONCRECIVE 1444** will cover approximately 1m² at 1mm of thickness.

PACKAGING

CONCRECIVE 1444 is a two component system available in a choice of kit sizes which, when mixed according to directions, yield approximately:

Comprising	1 litre	5 litres
Part A	0.75 litre	3.75 litre
Part B	0.25 litre	1.25 litre

SHELF LIFE

CONCRECIVE 1444 can be stored undercover in tightly closed original containers for 12 months at moderate temperatures.

PRECAUTIONS

READ ALL SAFETY DIRECTIONS AND WARNINGS ON TINS BEFORE USE. REFER TO MATERIAL SAFETY DATA SHEET (MSDS) FOR HANDLING PROCEDURES.

- 1) As with all epoxy products, wear protective overalls and gloves – prolonged contact with skin should be avoided as it could produce dermatitis, particularly with people whose skin may be sensitive to epoxy resin systems.
- 2) Ensure adequate ventilation.
- 3) Mix entire contents of each unit as supplied. Do not attempt to split units unless accurate measuring can be assured.
- 4) Do not use at temperatures of less than 5°C unless artificial means of heating can be used to assist cure. During cold weather Part A should be pre-warmed to between 20°C and 30°C.

For the full health and safety hazard information and how to safely handle and use this product, please make sure that you obtain a copy of the **BASF Material Safety Data Sheet (MSDS)** from our office or our website.

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STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this **BASF** publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

NOTE

Field service where provided does not constitute supervisory responsibility. Suggestions made by **BASF** either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not **BASF**, are responsible for carrying out procedures appropriate to a specific application.

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