

CONCRESE

® 1414

Epoxy bonding agent for concrete repairs, bonding concrete to concrete, steel and granolithic toppings

Description

CONCRESE 1414 is a permanent epoxy adhesive for internal or external bonding of renderings, granolithic toppings, and concrete to concrete. It tolerates a degree of moisture before and during curing and is insoluble when cured. The ultimate bond strength is greater than the tensile strength of concrete. CONCRESE 1414 does not shrink and provides an even and stress-free bond.

Primary uses

CONCRESE 1414 may be applied to clean, sound and durable surfaces, i.e. steel, glazed tiles and bricks, ceramic and quarry tiles, terrazzo tiles and floors. Also to smooth and worn granolithic pavings, old and worn concrete, engineering and semi-engineering bricks.

Advantages

- High strength
- Non shrink
- Moisture tolerant
- Durable
- Resistant to chemical attack
- Supplied in pre-weighed units

Packaging

CONCRESE 1414 is available in 3kg units containing the base resin and reactor component.

Typical properties*

*Properties listed are only for guidance and are not a guarantee of performance.

Mixed density @ 25°C:	1485kg/m ³	
Pot life:	25°C	2½ hours
	40°C	1 hours
Tack free time:	25°C	9½ hours
	40°C	5½ hours
Full cure:	7 days	

Standards

ASTM C881 Type 2 Grade 2, Class B & C.

Application procedure

Preparation:

All surfaces must be thoroughly cleaned and prepared. All loose particles, laitance, dust, curing compounds, floor hardeners, oil, grease, fat, bitumen and paint must be removed if good bond strength is to be achieved. Gloss surfaces must be abraded.

If oil, grease, fat, etc. are present, they should be removed before starting any other form of

preparation. All laitance weak or friable concrete should be removed by chipping, grit blasting, or scabbling until a sound base is obtained.

All laitance should be removed by mechanical scarification, grit blasting, or by acid etching. Visible signs of mould growth, lichen, or algae, should be removed and treated with a fungicidal wash.

New concrete should have cured until the shrinkage and moisture movement is low. Surfaces heavily impregnated with mould oil should be degreased and grit blasted or mechanically scarified to remove the contaminated surface. All curing compounds should have disintegrated or be removed and application carried out only onto a clean, dust free surface.

Mixing:

Carefully transfer the entire contents of the smaller container of CONCRESE 1414 REACTOR COMPONENT to the larger CONCRESE 1414 BASE COMPONENT tin and thoroughly mix, using a stout palette knife or a slow running drill with a paint mixing paddle until uniformity is achieved. This normally takes about three minutes. Do not attempt to mix only part of the contents. Do not attempt to thin CONCRESE 1414.

Guide to application:

CONCRESE 1414 should be applied evenly across the whole surface with a clean, short haired paint brush or a laying-on trowel.

After application, the CONCRESE 1414 must be left to stand before overcoating. The time

delay will depend on surface and prevailing conditions but will typically be 60 minutes at 25°C or 45 minutes at 40°C.

The CONCRESE 1414 should be protected during this time to prevent contamination. This is particularly necessary on horizontal surfaces.

Renderings and screeds:

Once the render or screed has been applied over the CONCRESE 1414 recognised methods of working may be adopted.

It is essential that granolithic paving and sand cement renders and screeds are cured. This can be achieved by curing with a fine spray of clean water and polythene sheeting. More effective is to spray the surface with a curing membrane from the MASTERKURE range. Failure to observe these precautions may cause the render or screed to crack and craze.

Expansion joints formed in the substrate should be carried through the rendering or screed and may be filled with MASTERFLEX 700, a 2 part polysulphide joint sealant.

Temperature

Since low temperatures retard the setting and curing of CONCRESE 1414, avoid working in cold weather if possible. Although CONCRESE 1414 will cure slowly at low temperatures, a temperature of 7°C to 10°C can be considered to be the lowest at which work on vertical rendering may proceed satisfactorily without shuttering.

Equipment care

Use CLEANING SOLVENT NO. 2 to clean tools when CONGRESIVE 1414 is still wet or tacky. Once CONGRESIVE 1414 has set hard, it can only be removed by chipping or burning.

Coverage

2-2.7m²/kg dependent on substrate profile.

Storage

Store under cover out of direct sunlight and protect from extremes of temperature. In tropical climates the product must be stored in an air conditioned environment.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage and disposal advice consult Degussa's Technical Services Department.

Safety precautions

As with all chemical products, care should be taken during use and storage to avoid contact with eyes mouth, skin and foodstuffs (which can also be tainted with vapour until product fully cured or dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek immediate medical attention. For further information refer to the material safety data sheet.

Note

Field service, where provided, does not constitute supervisory responsibility. For additional information contact your local Degussa representative.

Degussa reserves the right to have the true cause of any difficulty determined by accepted test methods.

Quality

All products produced by Degussa certified manufacturing facilities, are produced to conform to systems designed to meet internationally recognised quality standards.

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