

# CemKey Datasheet

September 2019

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**CemKey** contains a resin with exceptional adhesive qualities. It is a reliable general-purpose adhesive for the building and decorative industry. It replaces the water addition component of cement based products and enhances the performance of these products.

## Purpose

To dispense with hacking when plastering, tiling or painting onto smooth or friable surfaces. It can be used as an adhesive, a bonding liquid for friable surfaces, as a primer for PVA and acrylic paints, as a cement additive to improve adhesion, mixed with cement as a crack filler and mixed with proprietary crack fillers to limit ghosting of filled spots when over coating with paint. It can be used in plaster mixes to improve the strength and integrity of the plaster and is invaluable for improving the adhesion of cement based decorative coatings to difficult surfaces.

## Technical Data

|                            |   |
|----------------------------|---|
| <b>Type</b>                | Non-hazardous polymer-based resin                                   |
| <b>Colour</b>              | Milky white liquid  |
| <b>Bonding time</b>        | Bonded layer can be applied after 4 hours but not later than 7 days |
| <b>Ambient temperature</b> | Avoid extreme temperatures and store above 5°C                      |
| <b>Boiling point</b>       | 100°C   |
| <b>Density</b>             | ± 1kg/litre   |
| <b>Properties</b>          | Open drums will skin. The base polymer mixes well with cement       |
| <b>Safety</b>              | See MSDS  |

## Advantages

- Eliminates hacking
- Interior and exterior use
- Ready for use - no need to dilute with water
- Lime fast
- Compatible with cement, lime and sand
- Non-flammable
- Translucent when dry
- Adheres to concrete, brick, tiles, cement plaster and stone

## Limitations

- Does not bond to plastic, rubber or gypsum plaster
- Cannot be used in freezing weather (below 5°C)
- Priming or bonding coats are not recommended without the addition of cement for permanently damp conditions
- Not for use in water containing structures
- Not to be used in conjunction with thin film coatings to coat clay bricks

## Suitable Surfaces

Dry stack brickwork, breeze blocks, stock and face bricks, concrete, hard and clean bag wash, scratch plaster, previously painted surfaces, tiles etc. Surfaces are to be hard (no crumbling or structural cracking and have good compressive strength). They should also be clean and free of contaminants, grease and oil which may impair bond.

Cemcrete provides a comprehensive technical service based on over 4 decades of experience in the field of surface applications and cement technology. Cemcrete believes, to the best of its knowledge, that the information contained herein is true and accurate at the date of issuance and is subject to change without prior notice. For further clarification of these instructions, contact Cemcrete.

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## Surface preparation

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New floor and wall surfaces must be allowed to cure for the minimum periods detailed below to ensure that the overcoat/tile installation is not compromised by drying shrinkage movement in the substrate.

New concrete – 6 weeks

New screed – 4 weeks

New brickwork – 4 weeks

New render – 2 to 3 weeks depending on weather

The substrate must have a moisture content of 5% or less before applying any overlay/tiles to the substrate. All surface beds (floors) should have a damp-proof membrane. Where this is not the case a suitable vapour barrier should be used to eliminate potential problems associated with excessive moisture in the substrate (e.g. slow- or non-curing of micro-toppings, adhesives etc.).

Any screed or rendering must be firmly attached to the underlying concrete or brickwork, and the substrate must be structurally sound (no crumbling, cracking, etc.) and of a quality and consistency suitable for any form of micro-coating/topping or tiling. All damaged, defective, deteriorated or hollow sounding areas must be removed and made good before proceeding.

### 1. General

The substrate must be clean and free from all traces of surface laitance and contamination such as dust, dirt, waxes, oils, bitumen, old adhesives, paint, grease, weak cement screeds and renders, shutter release and curing agents, sealing compounds, etc. Organic or fungal growth must be removed and the spores killed using an effective fungicide.

### 2. Off-shutter concrete, smooth & dense surfaces, power floated & steel floated surfaces

Clean thoroughly or mechanically abrade to remove all traces of shutter release and curing agents, laitance, polishes, etc. (Removing ± 0.5mm to 1mm off the surface is usually sufficient).

### 3. Existing paint or existing gypsum plaster

Paint must be in good condition and firmly bonded to the substrate, i.e. not loose, flaking or peeling. All traces of grease, grime, soap residues and other contaminants must be removed. Where possible mechanically abrade (grinding) to remove most of the paint. The surface profile should resemble that of a p60 grit sandpaper. Do not worry about what one cannot get off and is tightly bonded. Mechanically abrade to remove all traces of gypsum plaster.

### 4. Bitumen adhesive / waterproofing

Mechanically abrade to remove completely.

## Mixing

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Ready for use - no diluting required.

## Applications

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**CemKey** may be used in any intermediate cement-based products/coat where improved adhesion, increased flexural strength, resistance to certain chemicals is required.

**CemKey** is also a very effective and economical water-based bonding liquid for most painting systems. For absorbent surfaces and friable plaster or plaster depicting hairline cracking brush or roller apply **CemKey** onto dry, well cured surfaces. Depending on prevailing weather conditions it should be touch dry after 4 hours.

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## Coverage

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Depends on the application, product type and surface porosity. As a primer, depending on the nature, surface profile and method of application the coverage is estimated as  $\pm 9\text{m}^2/\text{litre}$  per coat.

## Weather

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Avoid use of **CemKey** during freezing weather.

## Storage

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Store in a cool, dry area protected from freezing. Use within 12 months of purchase. Stir well from the bottom if storage is prolonged.

## Packaging

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Supplied in 5 litre containers. Bulk purchasing available on request.

## Safety

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Avoid skin and eye contact. Do not ingest. Wear safety glasses, gloves and protective clothing when necessary. Keep away from children and pets. In the event of contact with skin or eyes, rinse thoroughly with clean water. In the event of skin irritation or discomfort seek medical attention. See the relevant MSDS.

## Manufacturer's Warranty

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Cemcrete warrants that the products manufactured by it shall be free from material defects and will be consistent with its normal high quality. Should any of the products be proven defective, the liability to Cemcrete shall be limited to replacement of the product ex-factory. Cemcrete makes no warranty as to merchantability or fitness for a particular purpose and this warranty is in lieu of all other warranties expressed or implied. The user shall determine the suitability of the product for his intended use and assume all risks and liability in connection therewith.

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