

FlexBond Datasheet

November 2017

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A non-toxic latex based liquid admixture for Portland cement plasters; screeds or concrete.

Purpose

FlexBond replaces some or all of the water in cement mixes to improve bond, waterproofing, flexural, tensile and abrasive strengths, adhesion, thin film hardness, weak acid resistance, adhesion to asphalt and drying shrinkage. Can also be used to waterproof water-containing structures. Used in conjunction with Cemcrete's Polypropylene Membrane for cracks and joints in structures. Improves the adhesion of slush-coats for re-plastering pools, patching, repairing or application of screeds. Improves adhesion and waterproofing qualities of Cemcrete Tile Adhesive, Tile Grout, Self-Levelling Floor Screed. Used as an additive to PoolCrete to promote colour enhancement.

Technical Data

Type	Latex based cement admixture
Colour	Milky white in liquid form
Bonding time	± 1 Hour
Initial set	± 4 Hours depending on weather
Curing	Needs to air cure for at least 72 hours when mixed with cement
pH	± 5
Ambient temperature	Avoid extreme temperatures and store above 5°C
Boiling point	100°C
Density	± 1kg/litre
Other properties	The base polymer is slowly biodegradable
Properties	Open drums will skin Stable when mixed with cement
Safety	See MSDS

Advantages

- Lime fast
- Compatible with Portland cement, High Alumina cement, lime and sand
- Exceptional adhesion in cement mixes
- Non-flammable
- Unaffected by damp conditions, mixtures may be applied to damp surfaces
- Better resistance to frost
- Better acid resistance

Limitations

- Will not bond to plastic, rubber or gypsum plaster
- Cannot be used in freezing weather, but withstands freezing after placing
- Priming and bonding coats without cement are not recommended
- Not recommended for waterproofing roofs

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Applications

Improvement of Cemcrete's Self-Levelling Floor Screed as a hard-wearing surface

Follow instructions for Cemcrete Self-Levelling Floor Screed as per its datasheet, but instead of using water for mixing, use a solution of 1 volume **FlexBond** and 2 volumes water. Finish in the normal way.

Waterproofing unpainted, cracked reservoirs

Acid-wash the walls and floor of the reservoir using a solution of 1 volume hydrochloric acid and 2 volumes water. Allow the acid to act for about 10 minutes, wire brush and flush with water. Allow to dry. Hack out cracks. Wire brush internal surfaces of cracks. Fill cracks with a mixture of 1 volume cement and 2 volumes plaster sand mixed to a stiff paste with a solution of 1 volume **FlexBond** and 1 volume water. When filling is hard and dry, mix 1 volume **FlexBond**, 1 volume water and sufficient cement to produce a pourable slurry. Cut polypropylene membrane into convenient widths, dip into slurry, apply over filled cracks and smooth down using gloved hands and finally paint the membrane with the slurry.

Coverage: 1 litre **FlexBond**, 1 litre water, 4 kg Portland cement will cover 1.2m² using Cemcrete polypropylene membrane. If desired, the entire internal surfaces of the reservoir may be painted after the cracks have been repaired. This may be done using the same mix of slurry.

Coverage: 1 litre **FlexBond**, 1 litre water, 4 kg Portland cement will cover approximately 20m² per coat. Allow all work to dry and air cure for 4 days before filling the reservoir.

Patching and repairing concrete

Select a cement/sand ratio suitable for the patching to be done and incorporate **FlexBond** in place of half the water. If the patching is to be immersed in water allow 4 days to air cure before filling with water.

To improve adhesion of tile adhesive to difficult substrates, smooth surfaces or heavy tiles

Ensure all surfaces and tiles are clean. Use a solution of 1 volume **FlexBond** and 2 volumes water to mix Cemcrete Wall and Floor Tile Adhesive to a paste form. In extreme cases, damp the surface and prime with a mix of 1 volume cement, 1 volume plaster sand brought to a slurry with a solution of 1 volume **FlexBond** and 2 volumes water.

Additive to Cemcrete's PoolCrete to promote colour enhancement

Addition of **FlexBond** to the mixing water of coloured Cemcrete PoolCrete will improve brightness and colour of the plaster. The addition of about 2 litres concentrated **FlexBond** per 40kg bag of PoolCrete is sufficient.

Re-plastering of swimming pools

Empty pool. If algae is present, dilute 4 cups of chlorine into a 10 litre bucket of water and apply liberally to affected areas. Leave for 24 hours to kill spores then wire brush and flush off with clean water. Using a hammer and chisel or a bricklayers comb hammer, painted surface every 50 mm making holes about 25 mm by 25 mm and 4 mm deep or in the case of old plaster remove it. Sweep and remove all chips and dust from the pool. In a plastic bucket make a solution of 1 volume hydrochloric acid and 3 volumes water. Apply liberally to chipped surface using a block-brush or nylon bristle brush. Protect eyes and hands. Allow acid to act for about 10 minutes to visibly etch the surface then flush with clean water and wire brush all areas to remove loose material. When the surface has been prepared as above, apply a slush coat comprising PoolCrete Primer in a solution of 1 volume **FlexBond** and 4 volumes water. Mix slush well and stipple onto the old plaster using a block brush, soft carpet brush or broom. Allow slurry coat to harden overnight and apply PoolCrete in the normal way. If mixing is done on the bottom of the pool, care should be taken not to remove the slurry coat. Do not wet slurry coat before applying PoolCrete. All in accordance with the manufacturer's instructions. If mixing is done on the bottom of the pool, care should be taken not to remove the slurry coat. Fill pool the day following the day of application of the PoolCrete. During the filling process the un-submerged plaster should be lightly sprayed with water at hourly intervals. Do not introduce a mechanical cleaner to the pool for 3 weeks. During this period use the pool brush only. (See Pool Start-up Guide.)

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Waterproofing shower floors

Acid wash and flush the concrete. Make a slurry of Portland cement mixed with a solution of 1 volume **FlexBond** and 1 volume water. Dip strips of Cemcrete polypropylene membrane in the slurry and lay on the concrete. Use a brush dipped in the slurry to remove all air bubbles and creases. Overlap strips at least 75 mm. Bring the membrane up the walls at least 150 mm so that the wall tiles go on top. Allow membrane to dry for at least 1 hour, then brush on two further coats of the slurry containing **FlexBond** ensuring that the entire surface is coated. Lay the screed to falls. Use **FlexBond** in place of half the water when fixing mosaics. The floor mosaics should be fixed before the wall tiles.

Upgrading ceramic tile grouts

Imparts the following properties to tile grouts:

- Reduced shrinkage
- Better adhesion to tile shoulders
- Waterproofs joints
- Resistance to dirtying
- Resistance to urine, dilute chemicals sugar solutions and lactic acid
- Improves flexibility of joints

Use a solution of 1 volume **FlexBond** and 2 volumes water for mixing Cemcrete Tile Grout.

Spatter dash

FlexBond is excellent for use with cement as a spatter dash in order to create a mechanical key for plastering over concrete, previously painted surfaces or where suction is lacking. It can also be used in water containing structures for this purpose due to its superior bonding capability and tolerance to moisture.

Make up a solution using 1 volume **FlexBond** and 2 volumes water. Then make up a slush comprising 1 volume cement, 1 volume plaster sand and 1 volume river sand mixed with the solution made up of 1 volume **FlexBond** and 2 volumes water. Flick this mix using a block brush over the surface to be plastered so as to achieve an even distribution of nodules over the surface. Allow this to set for at least one day before plastering.

Site Work

Storage

Store in a dry shed protected from freezing for 12 months from date of invoice. Stir well from the bottom if storage is prolonged.

Surface Preparation

Ensure surfaces are hard, firm and clean, free of grease and oil and are not flaking.

Packaging

Available in 1 litre, 5 litre and 20 litre non-returnable drums.

Safety

Gloves, dust masks and suitable eye protection is a prerequisite to the mixing and application of **FlexBond**.

- Skin contact: Wash thoroughly with soap and water.
- Eye contact: Flush immediately with water for 10 – 15 minutes and contact a physician.
- Respiratory problems: Remove affected person to fresh air immediately and contact a physician.
- Not for internal consumption.

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Manufacturers of Distinctive Decorative Coatings

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Manufacturer's Warranty

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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