FlexBond Datasheet

August 2019

A non-hazardous latex based liquid admixture for 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 reduces drying shrinkage. Can also be used to waterproof water-containing structures. Used in conjunction with textiles & membranes 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 tile adhesive, tile grout and self-levelling floor screed. Used as an additive to PoolCrete to promote colour enhancement and resistance to pool chemicals.

Technical Data

Type	Latex based cement admixture
Colour	Milky white liquid
pH	±10
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

- Compatible with Portland cement, High Alumina cement, lime and sand.
- Exceptional adhesion in cement mixes.
- Non-flammable.
- Unaffected by damp conditions, may be used in water containing structures.
- Improves freeze/thaw resistance of cement mixes.
- Improves chemical resistance.

Limitations

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

Applications

Improvement of floor levelling compounds as a hard-wearing surface

Follow instructions for floor levelling compound as per its datasheet, but replace the water used for mixing with a solution of 1 volume **FlexBond** and 2 volumes water. Finish in the normal way.

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Waterproofing unpainted, cracked reservoirs

Acid-wash the predampened 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 paintable 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 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 12 hours 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 12 hours 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 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 and chemical resistance

Addition of **FlexBond** to the mixing water of Cemcrete PoolCrete will improve brightness and colour of the plaster and resistance to pool chemicals. The addition of about 2 litres concentrated **FlexBond** to 5 - 6 litres of water per 40kg bag of PoolCrete is sufficient.

Re-plastering of swimming pools

For detailed instructions see Cemcrete PoolCrete datasheet. The use of **FlexBond** with PoolCrete results in brighter colours, improved chemical resistance and improved adhesion of the PoolCrete.

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 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 75mm. Bring the membrane up the walls at least 150mm 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.

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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 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 closed container in a dry, cool area away from direct sunlight protected from freezing. Use within 12 months from date of purchase. Stir well from the bottom if storage is prolonged.

Surface Preparation

Ensure surfaces are hard, firm and clean, free of grease, oil and anything that could impair adhesion.

Packaging

Available in 1 litre, 5 litre and 20 litre containers.

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.
- Respiratory problems: Remove affected person to fresh air immediately and contact a physician.
- Not for internal consumption.

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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