BETEC® Flex

Two component, flexible, cementitious coating for waterproofing/damp-proofing of new and existing structures.

Description

BETEC® Flex comprises a liquid polymer A component and a special cement based powder B component. The two components are mixed together with a slow speed drill and paddle to form a smooth slurry. The slurry is applied by trowel or brush, in two coats, to horizontal and vertical surfaces and dries to form a hard but flexible waterproof cementitious coating.

System Components

- BETEC® Flex - flexible cementitious coating for waterproofing and damp-proofing.
- BETEC® NSM Mortars - cementitious mortars for repair/levelling of substrates prior to the application of BETEC Flex.
- BETEC® Plug - Quick setting, cementitious waterproof plugging compound.
- BETEC® Mesh 1000 - reinforcing mesh for use where substrate cracking has or is likely to occur.
- BETEC® Band 150 - elastomeric tape for use at all designed movement joints, construction joints and horizontal to vertical joints.

Advantages

- Resists both positive and negative pressure
- Flexible - will bridge drying shrinkage and hair line cracks
- Water vapour permeable
- Suitable for waterproofing basement grades 1, 2 and 3, as defined in BS 8102 1990.
- Easy application, to internal or external surfaces
- Supplied in pre measured packs - no uncontrolled water addition
- Good adhesion to correctly prepared concrete, and masonry substrates.

Applications

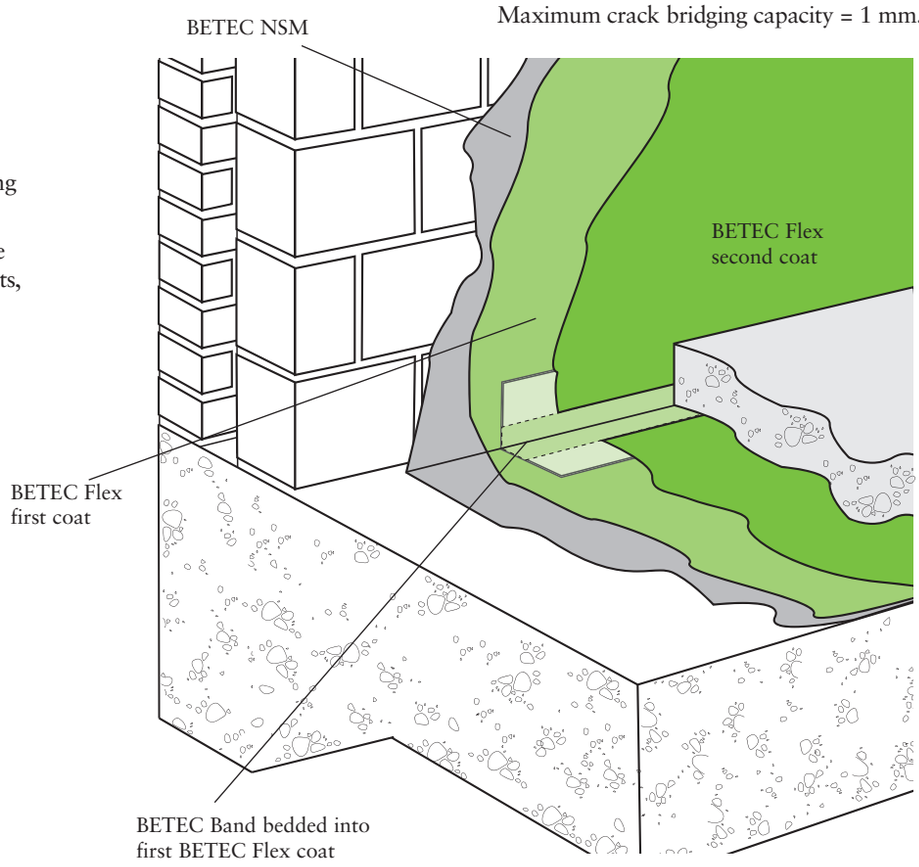
- Basements
- Swimming pools
- Wet areas - kitchens/bathrooms
- Balconies
- Planter boxes
- Lift pits
- Concrete tanks
- Floors

Limitations

Structures must be designed to accommodate all imposed loadings, including hydrostatic pressure.

Maximum resistance to negative water pressure 1.5 bar.

Maximum crack bridging capacity = 1 mm.



Supply

BETEC® Flex		
Part A (liquid)	10 kg plastic bucket,	40 buckets per pallet
Part B (powder)	24 kg bag,	40 bags per pallet
BETEC Band 150	boxes of 5 rolls	150 mm by 20 metre rolls
BETEC Mesh 1000	1 metre by 50 metre rolls = 50 sq. m.	
BETEC NSM Mortar	25 kg bags.	40 bags per pallet
BETEC Plug	5 kg plastic bucket	

Typical Properties - BETEC® Flex

Property	Values
Colour	Off white
Workability at 10°C	70 min
Workability at 20°C	40 min
Workability at 30°C	15 min
Density of wet mix	1.75 kg/litre
Operating temperature	from +5°C to +60°C
Max crack bridging capacity (post formed)	1 mm
Full cure at 20°C	7 days
Tensile bond strength	1.0 N/mm^2
Elastic Modulus	< 100 N/mm^2
Hydrostatic Head Resistance (Positive pressure)	3 bar (30 m)
Hydrostatic Head Resistance (Negative pressure)	1.5 bar (15m)

Coat Thickness and Consumption

Application	Number of Coats	Thickness of Each Coat (mm)	Consumption Per Coat After Liquid Part A Addition (kg/m^2)
Damp proofing	2	0.8 - 1.2	1.4 - 2.1
Hydrostatic pressure	2	1.3 - 1.7	2.3 - 3.0

Above consumption figures assume a smooth surface and exclude allowance for waste
Approx. coverage per 34 kg kit = 19.5 m^2 per mm thickness

Application

Storage:

Store in a cool dry place, in original packaging and use within 12 months. Protect against damage by frost with insulation materials if stored at low temperatures.

Liquid component (Part A) cannot be used once frozen.

Substrate Preparation:

Masonry walls – chase out all holes and voids and fill with appropriate type of BETEC NSM Mortar (see separate product data sheet) to provide a smooth level surface. Mortar joints should be flush pointed. Remove all bitumen, oil, grease, dirt and other surface contaminants by wire brushing and pressure washing. Cut back any protrusions.

Concrete - all laitance and friable concrete must be removed by bush hammering or sand blasting. Remove all shutter release agents, bitumen, oil, grease, dirt, loose and degraded material. Chase out all honeycombed/damaged concrete and fill with BETEC NSM Mortar.

Any seeping water must be sealed with BETEC Plug (see separate product data sheet).

All substrates should be pre-watered with clean water to fully saturate the surface. At the time of application of BETEC Flex the surface should be damp, but not wet, remove any ponded water from horizontal surfaces.

Mixing:

Shake the liquid (Component A) well and pour around 75% of the contents into a clean plastic bucket. Slowly add the powder (Component B), mixing with a paddle stirrer and slow speed drill (500 – 600 rpm). Mix until a homogeneous slurry, free from all lumps is formed. Scrape any unmixed material from the side of the bucket with a trowel and mix in. Finally, add the appropriate amount of the remaining liquid (Component A) to achieve the required consistency for application.

Do not use part mixes. Do not add water, cement, sand or other additions to BETEC Flex.

Application:

Ambient and material temperature minimum 5°C, maximum 30°C.

BETEC Flex is applied in two coats. Once mixed, the slurry has a workability period of around 40 minutes at 20°C.

Apply, using a plastic/steel trowel or brush at the recommended thicknesses.

Apply BETEC Band 150 over all horizontal/vertical joints and at any movement joints and bed into the first coat of BETEC Flex, ensuring uniform adhesion.

Where BETEC Band could be subject to hydrostatic pressure, the band must be fully supported. Contact Grace for details.

Apply BETEC Mesh 1000, in strips, over all substrate cracks and bed into the first coat of BETEC Flex, ensuring uniform adhesion.

Leave the first coat to harden (typically twelve hours) then apply a second coat at the same thickness/consumption rate as the first. Avoid damaging the first coat during application of the second coat.

Maximum time first coat can be left before application of second coat is twenty four hours.

Clean off all tools in water before BETEC Flex sets hard.

Curing & Protection

Protect BETEC® Flex from direct sunlight, strong winds by covering with polythene or damp hessian for at least two days. Protect against frost with insulation sheeting for at least two days.

Health And Safety

Read the product label and Material Safety Data Sheet (MSDS) before use. Users must comply with all risk and safety phrases. MSDS's can be obtained from Grace Construction Products or from our web site at www.graceconstruction.com.

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Grace Construction Products Ltd, Ajax Avenue, Slough, Berkshire SL1 4BH United Kingdom Tel +44 (0)1753 692929 Fax +44 (0)1753 691623

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