

# BETEC® Seal

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

## Description

BETEC® Seal is a ready to use powder premix comprising cement, selected particle size quartz, synthetic resins and special additives. BETEC Seal is mixed with water using a slow speed drill and paddle to form a smooth slurry. The slurry is applied by brush or trowel, in two or three coats, to horizontal and vertical surfaces and dries to form a hard, durable, waterproof cementitious coating.

## System Components

- BETEC® Seal - cementitious coating for waterproofing and damp-proofing.
- BETEC® NSM Mortars - cementitious mortars for repair/ levelling of substrates prior to the application of BETEC® Flex/Seal.
- BETEC® Plug - Quick setting, cementitious waterproof plugging compound.
- BETEC® Mesh 1000 - reinforcing mesh for use where substrate cracking has or is likely to occur.

## Advantages

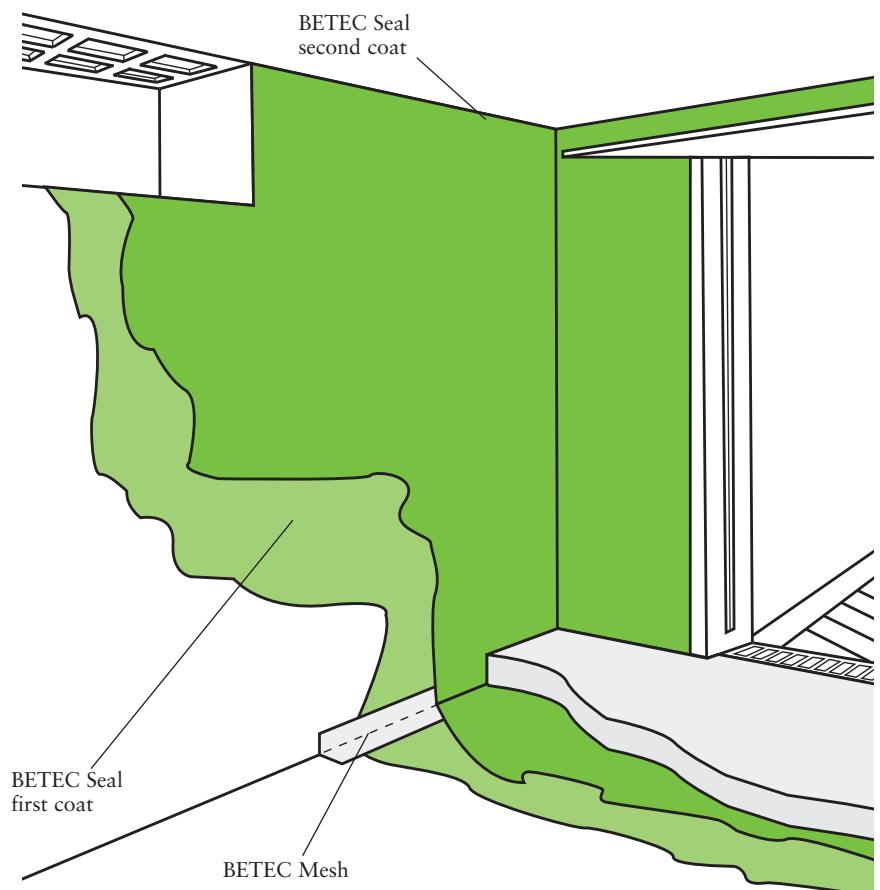
- Resists both positive and negative pressure.
- Suitable for waterproofing basement grades 1, 2 and 3, as defined in BS 8102 1990.
- Easy application, to internal or external surfaces.
- Good adhesion to correctly prepared concrete substrates.
- Water vapour permeable.

## Applications

- Basement walls and floors
- Lift pits
- Concrete tanks
- Concrete water retaining structures
- Stairs
- Monolithic concrete planter boxes

## Limitations

- Not suitable for masonry substrates or concrete liable to structural movement or cracking - use Grace BETEC Flex in these applications (see separate Product Data Sheet).
- Structures must be designed to accommodate all imposed loadings, including hydrostatic pressure.
- Maximum resistance to negative water pressure = 1 bar.
- Minimum tensile strength of substrate = 1.5 N/mm<sup>2</sup>.



## Supply

BETEC® Seal	25 kg bag	40 bags/pallet
BETEC® NSM Mortar	25 kg bag	40 bags/pallet
BETEC Mesh 1000	1 metre by 50 metre rolls = 50 sq. m.	
BETEC® Plug	5 kg plastic sachet	

### Typical Properties

Property	Values
Colour	Light grey
Workability at 20°C	45 - 60 min
Workability at 30°C	10 - 15 min
Density of wet mix	2.0 kg/litre
Dry Bulk Density	1.6 kg/litre
Operating temperature	from -5°C to +60°C
Full cure at 20°C	7 days
Tensile bond strength	> 1.5 N/mm <sup>2</sup>
Hydrostatic Head Resistance (Positive pressure)	3 bar (30 m)
Hydrostatic Head Resistance (Negative pressure)	1 bar (10m)

### Coat Thickness and Consumption

Application	Number of Coats	Thickness of Each Coat (mm)	Consumption Per Coat After Water Addition (kg/m <sup>2</sup> )
Damp proofing	2	0.7 – 0.9	1.4 – 1.8
Hydrostatic pressure	3	0.7 – 0.9	1.4 – 1.8

Above consumption figures assume a smooth surface and exclude allowance for waste  
Approx. coverage per 25 kg bag = 15 m<sup>2</sup>/mm thickness

### Application

#### Storage:

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

#### Substrate Preparation:

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, a single-component quick-setting waterproof mortar (see separate product data sheet).

All substrates should be pre watered with clean water sufficiently to saturate the surface. At the time of application of

BETEC Seal the surface should be damp but not wet, remove any ponded water from horizontal surfaces.

#### Mixing:

Water addition per 25 kg bag is 5.5 - 6.5 litres.

Pour around 75% of the correct quantity of water into a clean plastic bucket.

Slowly add the powder, mixing with a paddle stirrer and slow speed drill (500-600 rpm) for 3-5 mins. 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 remaining water, in small quantities until the required consistency is achieved and mix well.

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

### Application:

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

BETEC Seal is applied in two or three coats using a fibre brush or trowel. Brush the first layer horizontally only, then brush the second layer vertically only. Alternate the brush direction for subsequent coats. Once mixed, the slurry has a workability period of around 45 minutes at 20°C.

Leave each coat to harden (6 to 24 hours depending on climatic conditions) then apply subsequent coats 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 Seal sets hard.

### Curing & Protection

Protect BETEC Seal from direct sunlight and 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](http://www.graceconstruction.com).

 Visit our web site at [www.graceconstruction.com](http://www.graceconstruction.com)

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Printed in England - 05.06- Ref. BT001

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