

BETEC[®] Seal

One component, cementitious coating for waterproofing/ dampproofing 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.

Applications

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

System Components

BETEC[®] Seal – cementitious coating for waterproofing and dampproofing

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

Limitations

- Not suitable for masonry substrates or concrete liable to structural movement or cracking – use 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/mm²

Advantages

- Resists both positive and negative pressure.
- Suitable for waterproofing basement grades 1, 2 and 3, as defined in BS 8102:2009
- Easy application, to internal or external surfaces
- Good adhesion to correctly prepared concrete substrates
- Water vapour permeable

SUPPLY

| | | |
|-------------------|--------------------------------------|----------------|
| BETEC® Band 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 | |

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 quicksetting 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.

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 |
| Operating temperature | 1.6 kg/litre |
| Max crack bridging capacity (post formed) | from -5 °C to +60 °C |
| Full cure at 20 °C | 7 days |
| Tensile bond strength | >1.5 N/mm ² |
| Hydrostatic Head Resistance (Positive pressure) | 3 bar (30 m) |
| Hydrostatic Head Resistance (Negative pressure) | 1 bar (10m) |

Health and Safety

Read the product label and Safety Data Sheet (SDS) before use. Users must comply with all risk and safety phrases. SDS's can be obtained from GCP Applied Technologies or from our web site at gcpat.com.

COAT THICKNESS AND CONSUMPTION

| Application | Number of Coats | Thickness of Each Coat (mm) | Consumption Per Coat After Water Addition (kg/m ²) |
|----------------------|-----------------|-----------------------------|--|
| 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 m²/mm thickness

Details shown are typical illustrations only and not working drawings. For assistance with working drawings and additional technical advice please contact GCP Technical Services.

All declared values shown in this data sheet are based on test results determined under laboratory conditions and with the product sample taken directly from stock in its original packing without any alteration or modification of its component parts.

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.

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Last Updated: 2018-08-24

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