

BETEC® NSM

Polymer-modified, fibre-reinforced, cementitious mortars for repairing and restoring concrete and masonry surfaces.

Description

BETEC® NSM mortars are a range of technically advanced, single component, cementitious repair mortars that are fibre-reinforced and polymer-modified. The incorporation of plastic fibres minimises the risk of shrinkage cracking and the polymers ensure density and durability in the hardened mortar.

BETEC NSM mortars are particularly recommended for substrate repair/levelling prior to the application of BETEC® Seal and BETEC® Flex cementitious waterproof coatings.

The BETEC NSM range comprises:

Product	Min applied thickness per coat (mm)	Max applied thickness per coat (mm)
BETEC® NSM 1	3	12
BETEC® NSM 2	6	20
BETEC® NSM 4	15	40

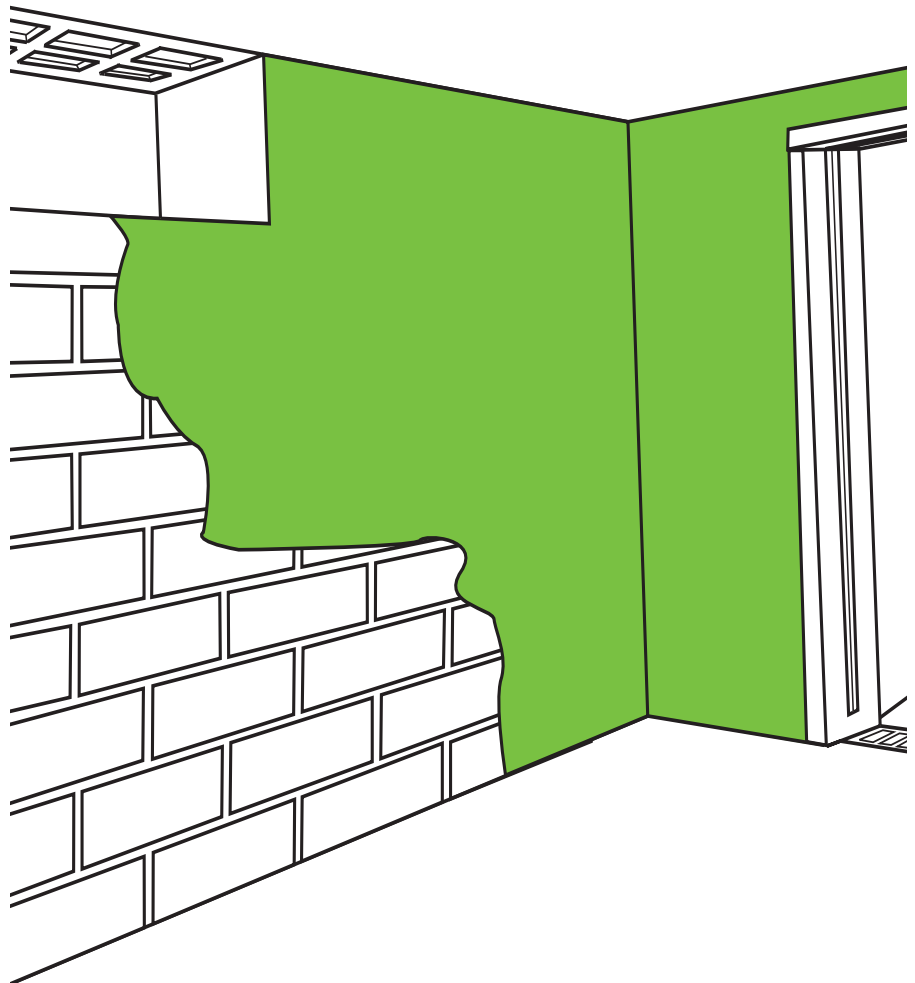
Maximum thickness per coat will vary depending on ambient conditions.

Advantages

- High strength.
- High density - good impact resistance.
- Optimised adhesion to substrates.
- Trowel or spray application.
- High plasticity ensures easy application.

Applications

- Damaged and honeycombed concrete structures.
- Masonry structures.
- Basement walls and floors.
- Swimming pools.
- Beams and columns.
- Liquid retaining tanks.
- Civil engineering structures.



System Components

- BETEC® Flex - flexible cementitious waterproofing slurry.
- BETEC® Seal - cementitious waterproofing slurry.
- BETEC® Plug - Quick setting, cementitious waterproof plugging compound.
- BETEC® Band 150 - elastomeric tape for use at all designed movement joints.

See individual product data sheets for full details of system components



Typical Properties

	BETEC® NSM 1	BETEC® NSM 2	BETEC® NSM 4
Packaging (bags)	25 kg	25 kg	25 kg
Inert particle size	0 - 1 mm	0 - 2 mm	0 - 4 mm
Attainable thickness	3 mm to 12 mm	6 mm-20 mm	15 mm to 40 mm
Wet density after mixing	2.15 kg/dm ³	2.20 kg/dm ³	2.26 kg/dm ³
Workability at 20°C	about 30 min.	about 30 min.	about 30 min.
Quantity of mixing water	3.4 - 3.6 litres	3.4 - 3.6 litres	3.4 - 3.6 litres
Compressive Strength (28 Days)	45 N/mm ²	50 N/mm ²	50 N/mm ²
Flexural Strength (28 Days)	6.0 N/mm ²	6.5 N/mm ²	6.5 N/mm ²
Coverage			
Approx. coverage per 25 kg bag = 13 m ² /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.

Substrate Preparation:

Masonry walls - chase out all holes and voids and remove any plaster, render, loose pointing or other materials that could reduce the bond of BETEC NSM mortars. Remove all bitumen, oil, grease, dirt and other surface contaminants by wire brushing and pressure washing. Cut back any large protrusions.

Concrete - all laitance and friable concrete must be removed by bush hammering or sand blasting. The surface should be well keyed to provide a good mechanical bond to the mortar. Remove all shutter release agents, bitumen, oil, grease, dirt, loose and degraded material, chase out all honeycombed/damaged concrete.

Any seeping water should be sealed with BETEC Plug, a single-component quick-setting waterproof mortar (see separate product data sheet)

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

Minimum average tensile strength of prepared substrate = 1.5 N/mm².

Mixing:

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

Water addition per 25 kg bag = 3.4 - 3.6 Lts.

Pour a 25 kg bag of BETEC NSM into a suitable, clean container and add around 80% of the water, mix for a minimum of 2 minutes with a slow speed drill and paddle mixer or a forced action mixer. Scrape any unmixed material from the side of the bucket with a trowel and mix in. Add the remainder of the water in small quantities until the required consistency is achieved and continue mixing for a further minimum 2 minutes until a smooth, lump-free mortar is obtained.

Application:

BETEC NSM products are generally applied by trowel but can also be spray applied using suitable mixing and spray equipment.

For trowel application ensure the mortar is well worked into the substrate, filling all surface irregularities. Workability period is around 30 minutes at 20°C. Do not exceed maximum recommended thicknesses. If thicker sections are required, work in layers. Roughen the surface of the previous layer and apply the next layer whilst still 'green'.

Curing & Protection

Protect BETEC® NSM mortars 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.

 Visit our web site at www.graceconstruction.com

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