Nafufill BB 2

Acrylic Based Bonding Agent & Polymer Component for Repair Mortars & Cement Screeds for Waterproofing & for Polymer Cement Concrete

Product Properties

- Saponification resistant co-polymer dispersion.
- Improves adhesive bond between existing concrete or mortar & new concrete or mortar.
- Improves flexibility of hardened mortars, thus avoiding stresses in repair/screed system.
- Improves compressive & flexural strength.
- Reduces water absorption, improves waterproofing properties.
- Plasticises mortar mixes for better workability.
- Improves water retention in mortars.

Areas of Application

- The production of structural levelling compounds and bonded screeds.
- The production of repair mortars, e.g. in the repair and filling of structural concrete in bridge building and civil engineering.
- For waterproofing mortars for roofs, basements, etc.
- Cold-joints between old and new concrete can be made strong and non-permeable with bonding slurry consisting of **Nafufill BB 2** and cement mortar.
- Improvement of the mechanical and technological characteristics of ready-to-use coarse and fine repair mortars intended for the repair of concrete.
- Second component for **Dichtament DS** waterproofing system.

Application Notes

Nafufill BB 2 is a Saponification-resistant acrylic co-polymer dispersion with extraordinarily favourable characteristics when used as a polymer component in hydraulically setting mortars. By addition of **Nafufill BB 2**, mortar will be improved particularly in terms of the following characteristics:

Strength of adhesive to the basis is distinctly improved. This allows structural bonds between existing mortar/concretes and fresh mortar. Coefficient of expansion corresponds to that of the unmodified mortar/concrete. The modulus of elasticity is reduced; i.e. the hardened mortar is improved in terms of flexibility, thus avoiding stresses in repairs/screed system. The compressive and flexural strength is increased compared to the reference mix. Water absorption is reduced, thus providing increased waterproofing properties.

The fresh mortar is considerably plasticized. Mortars with a particularly low water cement ratio can be produced with the same workability as the reference mix, thus considerably reducing the degree of shrinkage. The water retention value of the mortar is improved, thus involving less risk of drying out, shrinkage cracks, etc. (especially in thin mortar layers.)

Instruction for use

Surface Preparation

The base must be clean and free from loose particles, dust, grease oil or other remnants. Unsound areas should be removed until sound concrete is located.

The base must comply with the requirements laid down by competent authorities. Minimum tensile strength of substrate should be 1.5 N/ mm^2

Application

Bond coat: All repair systems need a bond coat to be applied on the prepared surface. The bond coat should be forcefully & evenly brushed into the substrates after the pre-moistened surfaces have dried.

Repair Mortar: The repair mortar should be applied wet-on-wet after the bond coat while it is still fresh. The compositions of bond coat & repair mortar for different cases are given below.

In general the dosage of **Nafufill BB2** varies as per the actual requirements. In general, for normal repair mortars, we recommend about 8 to 10% **Nafufill BB2** wt. of cement. For extreme conditions the dosage of **Nafufill BB2** should be increased.

As guideline we recommend dosage from 10 to 12 kg per 50 kg of cement for preparation of protective coatings to resist chloride attacks and carbonations. Such mortars should be used in thin coating overlays and not thick mortars.

Curing

Nafufill BB 2 inhibits rapid drying-out of the fresh mortar. The mortar should all the same be suitably protected from rapid drying in order to ensure uniform development of strength please note that all generally applicable regulations and working principles must be observed when using **Nafufill BB 2** for the production and application of cement mortars/ plasters.

Further Instructions/Precautions

1. Application of **Nafufill BB2 Mortar** system
   Bond coat: 100 pbw mortar + 13 pbw Liquid
   Bond coat Liquid: 1 pbw **Nafufill BB2** + 1 pbw water
   Mortar: 100pbw mortar+ 11pbw Liquid
   Mortar Liquid: 6 pbw **Nafufill BB2** + 5 pbw water

2. Application in conjunction with **Zentrifix AS**
   Bond coat: 100 pbw **Zentrifix AS** +25 pbw Liquid
   Bond coat Liquid: 1 pbw **Nafufill BB2** +2 pbw water
   Mortar: 100 pbw **Zentrifix AS** + 15 pbw Liquid
   Mortar Liquid: 1 pbw **Nafufill BB2 +** 2 pbw water

3. Application of conjunction with **Nafuquick** fine filler
   Mortar: 100 pbw **Nafuquick** + 20 pbw Liquid.
   Mortar Liquid: 1 pbw **Nafufill BB2** + 4 pbw water

4. Application of cement/sand screed with **Nafufill BB2**
   Bond coat: 1 pbw cement + 3 pbw 0.2mm dry sand + Liquid (added up to paintable consistencies).
   Bond coat Liquid: 1 pbw **Nafufill BB2** + 1 pbw water
   Mortar: 1 pbw cement +3 pbw 0.2mm dry sand+ 0.65 pbw Liquid
   Mortar Liquid: 1 pbw **Nafufill BB2** + 2 pbw water

Technical Data for Nafufill BB 2

Characteristic	Unit	Value	Comments
Bulk density	Kg/dm^3	2.39	
Flow table spread	Cm	21	
Air content	%	3.1	Average Value
Adhesive strength in Tension: Specimens stored At 23˚C & 50% RH.	N/mm^2	7 days: 1.9 28 days: 2.4 90 days: 3.6	Failures by Fracture in the concrete
Compressive strength of mortar system	N/mm^2	2 days: 26 7 days: 36 28 days: 55	4x4x16 cm prisms tested
Flexural strength of mortar system	N/mm^2	2 days: 5.9 7 days: 7.0 28 days: 11.0	4x4x16 cm prisms tested

Product Characteristics for Nafufill BB 2

Type of Product	Acrylic copolymer used as bonding agent & polymer component in repairs
Color	White
Consistency	Liquid
Deliver	30kg & 5kg containers
Storage	Store in original containers. Protect from Direct sunlight and Frost,
Disposal	Packs must be emptied completely.
Shelf Life	12 Months from date of packaging

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