



BUILD PLUS
CONSTRUCTION CHEMICALS

NS Buildgrout-HQ (Fast Setting, High Strength, Free Flow, Non-shrink Anchoring Grout)

NS Buildgrout-HQ is a ready to use, non-shrink, and non-metallic, flowable, high strength structural grout. It contains a balanced blend of graded silica sands, Portland cement, flow improvement compounds, and a shrinkage compensating system which produces a volume stable structural grout.

Uses: NS Buildgrout-HQ is used where non-shrink, high-strength, structural, durable grout is required such as precise machine bases, pump and equipment bases, Structural columns, compressors, Anchor bolts, Pumps, Fans or blowers, Motors, Generators, Machine bases of all types, Anchor Bolts, Base plates, etc.

Advantages: NS Buildgrout is a professional choice, one step grout, ready to use, controlled expansion properties, high early strength, and contains no added chlorides, iron or gypsum. Will not rust, bleed or harm metal on contact.

Directions for use:

Surface Preparation: The surface should be free from laitance, dust, oil and grease etc. Concrete surface must be structurally sound clean & free from deteriorated concrete particles that could impair adhesion. Smooth substrates must be abraded to ensure proper bonding. Shim and anchor the support elements to prevent movement. Saturate prepared area with potable water for 12-24 hours before application. Remove excess water from holes and voids. Use oil free compressed air to blow out bolt holes and pockets. Ensure that the form work is secure and watertight to prevent movement and leakage during the placing and curing of grout. The area should be free of excessive vibrations until the grout has hardened.

Mixing: Use only fresh and clean potable water. Water contents required for one bag 25 kg of BC Buildgrout is:

| | | | |
|-----------|------------|--------|---------|
| Plaster : | ASTM C-230 | 100% | 3.9 ltr |
| Flowable: | ASTM C-230 | 100% | 4.2 ltr |
| Fluid : | CRD-621 | 25-30s | 5.0 ltr |

NS Buildgrout-HQ must be mixed mechanically, using a slow speed electric drill fitted with mixing paddle. Larger quantities may require conventional power mixers. Measure the required quantity of clean water and pour into the container/mixer then add NS Buildgrout slowly while mixing until a smooth, uniform homogenous consistency is achieved. Do not attempt to re-temper with the mixed NS Buildgrout by the later addition of water. For stiffer mixes, reduce water requirement. It is recommended to grout with stiffest NS Buildgrout-HQ, and to never grout with NS Buildgrout when the flow is less than 20 seconds.

Application: Apply continuously and rapidly from one side. This will reduce the tendency to entrap air. To void entrapped air pockets, pour or pump Buildgrout HQ on a slanted form surface only.

Curing:

Proper curing of the exposed grout shoulders is very important. Cover all exposed grout with wet burlap or polythene sheets immediately after application. Keep the area moist for a minimum of 48 hours.

Workability:

Working time of NS Buildgrout is 20 minutes at 25⁰C, after 5 minutes standing time

Standards:

NS Buildgrout meets the volume change and exceeds the compressive strength of CRD-621 and ASTM C-1107 Grade C.

Coverage:

25 kg bag will yield approximately 15.73 liters, which is 0.0157 cubic meters. 64 bags of BC Buildgrout will yield approximately one cubic meter.

Typical Properties:

| | | |
|----------------------------|---|-----------------------------------|
| Initial Set | : | 3 hrs 5 minutes |
| Final Set | : | 4 hrs 47 minutes |
| Compressive Strength | : | 46.6 N/mm ² at 1 day |
| (BS EN 196 1994 Cls 4.6.2) | : | 54.2 N/mm ² at 7 days |
| | : | 70.8 N/mm ² at 28 days |
| Flexural Strength | : | 8.9 N/mm ² at 7 days |
| (BS EN 196 1994 Cls 4.6.2) | : | 12.3 N/mm ² at 28 days |
| Wet Density | : | 2230 kg/m ³ |
| Elasticity in compression | : | 6200000 PSI |

Composition:

Graded silica sand, Portland cement, flow improvement compounds, and shrinkage compensating polymer additives and admixtures



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ACI Standards:

NS Buildgrout-HQ is cement based, and therefore, it is recommended to follow the ACI practices:

ACI 304 : for measurement, mixing, transportation & application

ACI 305 : for hot weather application

ACI 306 : for cold weather application

ACI 308 : for curing

Do not add plasticizer, cement, sand, or accelerator to NS Buildgrout-HQ. Use only clean water for mixing. Use 8-10 mm pea gravel when grouting exceeds 75 mm thickness. Prior to application of grout, soak surface with clean water. At the time of application of grout, the substrate should be damp but free of standing water. Avoid mixing more grout than can be applied in 15 minutes and avoid application when temperatures are or will be below 4°C in the next 24 hours. On large jobs, rapid and continuous mixing and application are necessary. Excessive vibration due to nearby equipments should be avoided during application.

Appearance: Grey coarse powder

Pack Size: 25 kg plastic sacks

Code Practice:

Tiling and grouting should be carried out in accordance with up-to-date relevant British Standard or B.S. Codes of Practice, details of which can be obtained from British Standard Institute, British Standard House, 2 Park Street, London W.1.

Technical support:

Buildplus offers comprehensive technical support service & specification assistance in locations to our channel partners, end users, and contractors.

Quality & Care:

All the products manufactured and originated from Gulf Minerals and Chemicals, UAE facility are independently tested and certified under a Buildplus Management System to conform to the requirements of the quality, environmental, health & safety Standards.

Shelf Life & Storage:

12 months if stored properly in original unopened packing in a cool, dry, and ventilated conditions away from direct sunlight.

Handling:

NS Buildgrout-HQ is a non-flammable and non-toxic in nature. Avoid contact with eyes and skin as it may cause irritation due to its alkaline nature. Splashes of NS Buildgrout HQ should be washed off immediately with clean water.

Precautions:

- Do not add any admixture or fluidifiers
- Proper curing is required
- Do not allow to freeze until 4000 psi is attained
- Do not use as a topping
- Do not use material at freezing temperatures
- Rate of strength gain is significantly affected at temperature extremes.

Health & Safety Precautions:

This product contains Portland cement which is slightly alkaline when wet. For people with sensitive skins may cause irritation. Wear suitable protective clothing, gloves, eye protection and respiratory protective equipment. The use of barrier creams provides additional skin protection. In case of contact with skin, rinse with plenty of clean water, then cleanse with soap and water. In an emergency seek medical advice.

----- NS Buildgrout-HQ -----

