

HIGH-STRENGTH, FREE FLOW, NON-SHRINK, CEMENTITIOUS PRECISION GROUT

hahne NSG60 is a single-component, ready-to-use, high-performance cementitious grout with controlled expansion. It is specially designed for precision grouting applications where superior strength, flow and dimensional stability are required. The formulation incorporates advanced German expansion chemistry and optimized Indian raw material technology to ensure consistent flow, non-shrink behaviour, and long-term durability.



PRODUCT INFORMATION

Area of Applications

- Grouting of base plates for heavy machinery, turbines, compressors, and pumps.
- Grouting under precast elements, bridge bearings, and stanchion base plates.
- Filling of bolt pockets, anchor sleeves, and structural voids.
- Suitable for static and dynamic load-bearing applications.
- Precision grouting of structural supports and columns.
- Tie-rod hole filling for concrete structures

Features and Benefits

- Non-shrink and dimensionally stable – controlled expansion compensates for shrinkage.
- High early and ultimate strength for rapid commissioning.
- Excellent flowability ensures full contact under base plates.
- Pre-packed and chloride-free, ensuring consistent performance.
- Dual expansion system for both plastic and hardened states.
- No metallic content – prevents staining and corrosion.
- Compatible with pump or manual placement.
- Resists oil, vibration, and impact.

Yield

Approx. 12.5 litres per 25 kg bag at flowable consistency.

(Allow for wastage based on site conditions)

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TECHNICAL SPECIFICATIONS

Property	Test Method	Result
Appearance	Visual	Grey free-flowing powder
Water / Powder Ratio*	–	0.12 for Pourable; 0.16–0.18 for Flowable
Compressive Strength (N/mm ²)	ASTM C109:2026	1d: ≥25 3d: ≥35 7d: ≥45 28d: ≥60
Flexural Strength (N/mm ²)	ASTM C348:2021	7d: ~6 28d: ~10
Tensile Strength (N/mm ²)	ASTM C307:2023	≥3.5 @ 28 days
Pull-Out Bond Strength (N/mm ²)	IS 2770 (Part-1)- 1967	≥18 @ 7d, ≥20 @ 28d
Fresh Wet Density	ASTM C138:2024	2200–2300 kg/m ³
Young's Modulus	ASTM C469:2022	24–26 kN/mm ²
Coefficient of Thermal Expansion	ASTM C531:2018	11 × 10 ⁻⁶ /°C
Unrestrained Expansion	ASTM C940:2022	0–4% (plastic state)
Time for Expansion (After Mixing)	In-house	Start - 20 min Finish – 120 min

*Note: Given WP ratio is as per consistency and flowability at 25°C ±2°C

APPLICATION PROCEDURE

Surface Preparation

- All contact surfaces must be structurally sound, clean, and free from oil, grease, laitance, or loose particles.
- Defective concrete should be cut back to a sound base.
- Bolt holes and anchor pockets must be thoroughly cleaned and free from debris.

Pre-Soaking

- Pre-soak the concrete substrate with clean water for several hours prior to grouting.
- Immediately before application, remove all standing water to achieve a saturated surface-dry (SSD) condition.

Formwork

- Construct leakproof formwork with adequate venting to allow air release.
- Seal joints using mastic or foam rubber strips.
- The gap between the plate and formwork should be minimal to reduce unrestrained areas.

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Mixing

- Add 3 – 3.5 litres of clean water per 25 kg bag of **hahne NSG60** (for flowable consistency).
- Mix mechanically using a slow-speed drill (400–500 rpm) fitted with a suitable paddle or a high-shear grout mixer for large volumes.
- Mix continuously for 3–5 minutes until a uniform, lump-free grout is achieved.

Placing

- Place immediately after mixing to utilize the expansion effect.
- Grout should be poured from one side to ensure a smooth, continuous flow.
- Maintain a constant grout head and avoid interruptions.
- For deeper pours exceeding 100 mm, incorporate clean 5–10 mm graded aggregate (50–100% by weight of grout).

Curing

- After final set, cure all exposed areas using curing compound or continuous moist curing for a minimum of 7 days.
- Avoid rapid drying under direct sunlight or high wind conditions.

PACKAGING, STORAGE AND SAFETY

Packaging

- **hahne NSG60** is available in 25 kg moisture-resistant bags.

Storage and Shelf Life

- Store the adhesive in a cool, dry place, away from direct sunlight and moisture, to maintain its quality.
- The shelf life of the product is 6 months if stored in its original sealed packaging.

Safety Instructions

- Contains Portland cement and is alkaline in nature.
- May irritate eyes and skin.
- Avoid contact with eyes or prolonged contact with skin. In case of contact, flush thoroughly with water. Do not ingest.
- Avoid breathing dust. Wear a respirator in dusty areas.
- Non-toxic and non-flammable.

DISCLAIMER: The information and application guidelines provided by the company and its representatives are intended solely as a general reference. Users are strongly encouraged to conduct their own tests and trials to verify the product's suitability for their specific requirements before proceeding with full-scale use. As the identification of underlying issues, the quality of other materials and the workmanship on-site are beyond our control, we cannot offer any express or implied guarantees regarding the results. The company disclaims any liability for damages or unsatisfactory outcomes that may arise from the use of our products.