

# KEM GROUT 43

## Polyester Resin Grout

### Permanent Reinforcement Solution

#### DESCRIPTION:

KEM GROUT 43 is a two-pack polyester resin based anchoring or grouting material used in the form of pourable mortar. The Base and Hardener are mixed before use in overhead or horizontal holes. The thixotropic nature of the mix prevents the grout from flowing out of the hole.

#### PRODUCT FEATURES:

- Rapid strength gain
- Vibration resistant
- Corrosion resistant
- Non-expansive
- Can be placed under water

#### PRODUCT SPECIFICATIONS:

- Appearance : Mixed grout mild grey colour
- Consistency : Pourable
- Gel Time : 30 min
- CS @3 Hrs : 20 MPa
- CS @7 Days : 70 MPa

Gel Time Temp (°C)	Gel Time (min)	Min.Time Required Before Loading (hrs)
30	40 - 45	2 - 3
40	15 - 20	1

After the minimum time required for loading the grout, it attains a compressive strength of 20N/mm<sup>2</sup> in 3 hrs and a final compressive strength of 70N/mm<sup>2</sup> in 7 days when tested as per BS 6319.

#### AREAS OF APPLICATION:

- Foundation bolts
- Base and stress anchor plates
- Tie-back anchors
- Overhead rail tracks
- Starter bars and dowels

# KEM GROUT NS 1

## High Strength Free Flow Non-shrink Grout

### General Purpose Cement Grout

#### DESCRIPTION:

KEM GROUT NS 1 is a premixed powder, containing well graded aggregates, cement and speciality chemical additives to enable achievement of high early strengths. When mixed with the right quantity of water, the product turns into a free-flowing grout and unlike conventional grouts, does not shrink on setting.

#### PRODUCT FEATURES:

- Easy to use: Just add water on site. The product is pre-packed in controlled conditions for consistency in quality.
- Free flowing: Fills up all voids completely. There is no need for compaction of material in the voids.
- Non-shrinking: Occupies the filled space permanently without shrinking. It provides constant support to the load bearing areas.
- High early and final strength: Achieves high early and ultimate strength above 45 MPa at 28 days.
- Non-metallic and chloride-free: Does not contain chlorides and metals thus prevents any corrosion in the grouted foundation.

#### PRODUCT SPECIFICATIONS:

Complies with ASTM C 1107

- Appearance : Cementitious grey powder
- Chlorides : Nil
- Wet Mix Density : 2.2 kg/ℓ
- Flexural Strength at 28 days :  $\geq 6$  MPa
- W/P Ratio : 0.16 for flowable consistency
- Wet Density : 2250 kg/m<sup>3</sup> producing 12.5 ℓ of grout/25 kg bag at a flowable consistency.
- Setting Time : According to ASTM C191 at 25°C
  - Initial Set : 3 hours - 30 minutes
  - Final Set : 5 hours - 00 minute
- Typical Time for Expansion@ 25 °C : Start : 20 minutes  
Finish : 3 hours
- Free Expansion : 1 - 4%
- Pressure to Restrain Expansion : Approx .004 N/mm<sup>2</sup>  
Note: An unrestrained area should be kept to a minimum, otherwise grouting may be obscured.
- Compressive Strengths at 25° C of 50mm cubes as per ASTM C-109, cured under restraint in N/mm<sup>2</sup> :

Age ( in Days)	Trowellable	Flowable	Fluid
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# KEM GROUT NS 2

## High Strength Free Flow Non-shrink Grout

### Heavy Duty Cement Grout

#### DESCRIPTION:

KEM GROUT NS 2 is a premixed powder, containing well graded aggregates, cement and specialty chemical additives to enable achievement of high early strength. When mixed with the right quantity of water, the product turns into a free-flowing grout, and unlike conventional grouts, does not shrink on setting.

#### PRODUCT FEATURES:

- Easy to use: Just add water on site. This product is pre-packed in controlled conditions for consistency in quality.
- Free flowing: Fills up all voids completely. There is no need for compaction of material in the voids.
- Non-shrinking: Occupies the filled space permanently without shrinking. It provides constant support to the load bearing areas.
- High early and final strength: Achieves high early and ultimate strength above 65 MPa at 28 days.
- Non-metallic and chloride-free: Does not contain chlorides and metals thus prevents any corrosion in the grouted foundation.

#### PRODUCT SPECIFICATIONS:

- Complies with ASTM C 1107
  - Appearance : Cementitious grey powder
  - Chlorides : Nil
  - Bulk Density :  $1.45 \pm 0.02$  kg/l
  - Flexural Strength : 9 MPa at 28 days
  - W/P Ratio : 0.16 for flowable consistency
  - Wet Density : 2250 kg/m<sup>3</sup> producing 12.5 l of grout/25 kg bag at a flowable consistency.
  - Setting Time : According to ASTM C191 at 25°C.
    - Initial Set : 3 hours - 30 minutes
    - Final Set : 5 hours - 00 minute
  - Typical Time for Expansion@ 25 °C : Start : 20 minutes  
Finish : 3 hours
  - Free Expansion : 1 - 4%.
  - Pressure to Restrain Expansion : Approx .004 N/mm<sup>2</sup>
- Note: An unrestrained area should be kept to a minimum, otherwise grouting may be obscured.
- Compressive Strengths : At 25° C the Compressive strength of 50 mm cubes as per