



GR65

Machine foundation grout / non-shrink grout

Description

Gr65 is supplied as a ready to use dry powder. The addition of a controlled amount of clean water produces a free flowing, non-shrink grout. It is a blend of Portland cement, graded fillers and chemical additives which impart controlled expansion in the plastic state whilst minimizing water demand.

Uses

- For precision grouting where it is essential to with stand static and dynamic loads
- Grouting of base plates of turbines, compressors, boiler feed pumps etc.
- For anchoring a wide range of fixings these include masts, anchor bolts and fence posts

Advantages

- GR65 have no metallic iron contain to cause staining
- As it is free flowing grout it will provide high level of contact with load bearing areas
- Gaseous expansion system compensates for shrinkage and settlement in the plastic state
- Site batching variation can be reduced as this product comes in pre packed
- Without the use of chlorides develops high early strength
- High ultimate strength ensure the durability of the hardened grout

Method of application

- The substrate surface must be free from oil, grease or any loosely adherent material. If the concrete surface is defective or has laitance, it must be cut back to a sound base.
- Immediately before grouting takes place any free water should be removed with particular area care being taken to blow out all bolt holes and pockets.
- The formwork should be constructed to be leak proof.
- Generally the gap width between the perimeter formwork and the plate edge should not be more than 75mm.
- For best results a mechanically powered grout mixer should be used.
- Place the grout within 20 minutes of mixing to gain full benefit of the expansion process
- For thicker sections it is necessary to fill out GR65 with well graded silt free aggregate to minimize heat buildup.

NON SHRINK GROUT

Redwop[®]

- Consistency of grout:

Consistency	W/P required per 25 Kg bag
Pourable	0.160
Flowable	0.180

Notes: Sufficient grout must be prepared before starting. The time taken to pour a batch must be regulated to the time to prepare the next one.

Flow characteristic

- Data on 75 mm gap between base plate and RCC surface

Normal head	50 mm head	100 mm head
1200 mm	2400 mm	3000 mm

Notes: Non shrink grout GR65 has to be poured one side of the base plate. It has to come out other side. If top surface of grout touches to other side base plate bottom surface then all side grout has to be poured minimum at the surface of base plate.

Technical Information

Properties	Results
Appearance	Grey colored powder
Density	2200 to 2250 Kg/m ³
pH Value	7 to 8
Compressive strength @W/P 0.18 (BS 1881: part 116 1983)	>25 N/mm ² @ 1 days >45 N/mm ² @ 7 days >65 N/mm ² @ 28 days
Compressive strength @W/P 0.18 (N/mm ²) With addition of 50% of aggregates (IS 516-1959)	1 day >28 3 days >50 7 days >60 28 days >70
Tensile Strength	>3.5N/mm ² @ 28 days
Flexural Strength (BS 4551, 1998)	>10 N/mm ² @ 28 days
Coefficient of thermal expansion	11 x 10 ⁻⁶ per degree Celsius
Time for expansion	Start: 20 minutes Finish: 120 minutes
Pullout bond strength (W/P - 0.18)	>17 N/mm ² @ 7 days >20 N/mm ² @ 28 days
Young's modulus (ASTM 469 - 94)	28 kN/mm ²
Pressure to restrain plastic expansion	0.004 N/mm ² approx.

Limitations

- Low temperature working: When the air or contact surface temperatures are 10 °C or below on a falling thermometer, warm water (30 °C to 40 °C) is recommended to accelerate strength development.
- High temperature working: At ambient temperatures above 40°C, cool water (below 20 °C) should be used for mixing the grout prior to placement.

Curing

- On completion of the grouting operation, exposed areas should be thoroughly cured. This should be done by the use of REDICURE WB curing membrane, continuous application of water and/or wet hessian.

Packaging

- GR65 is supplied in 25 kg bags

Storage

- Minimum of 6 months shelf-life if kept under room temperature (i.e. 27°C).

Note

- GR65 formerly known as GP2.

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