

KWA – ZULU NATAL

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## MULTI CONSTRUCTION CHEMICALS

<http://www.mcc-sa.co.za>

### MULTIGROUT 800 N

#### Natural Affregate, High Strength, Non-shrink Fluid Grout

#### Specification Type

Meets requirements of CRD-C 621, ASTM C827, and ASTM C 109-80 and CRD 611-80 specifications.

**Description:** MULTIGROUT 800 N a premixed ready-to-use dry grout with specially graded siliceous aggregates, shrinkage compensating chemicals and blended with Portland Cements to produce a fluid non-shrink grout. It is grey in colour, is non-oxidizing and has no added chlorides or nitrates.

**Typical Applications:** In all applications where a non-shrink fluid natural aggregate cementitious grout is required or specified, particularly where a pre-mixed, durable and permanent grout with high early strength are the criteria.

#### Advantages

- \* MULTIGROUT 800 N is a fluid grout that provides precision support under load bearing elements such as machine base plates, sole plates, crane and transporter rails, stanchions and column bases, anchor bolts, turbines, pumps, generators, precast units and bridge bearings.
- \* MULTIGROUT 800 N is a specially designed precision grout for use where high fluidity is required and when the principal requirement is a shrinkage free grout.
- \* High Early Strength - meets ASTM C 109-80 specification. Obtains a minimum compressive strength to facilitate rapid installation and early operation of machinery/ structures.
- “ Non-shrink - meets CRD-C621 Specification. A non-shrink grout that hardens, free of bleeding, settlement or drying shrinkage, maintaining tight contact with the underside of grouted elements.
- \* Fluid Consistency - meets CRD-C611 - 80 Specification. A grout when mixed and placed at any consistency, fluid, damp pack or pumped, still remains free from segregation and bleeding (fluid consistency by flow cone test method).
- \* Iron Free: A non-metallic aggregate grout used where an appearance similar to that of concrete or mortar is required.
- “ Durability - a dense and ultimate high strength grout which contains no gas-generating or air- release agents such as aluminum powder, fluid coke, etc. it is durable and withstands repetitive loading requirements.
- \* Reliability - MULTIGROUT 800 N is premixed thus eliminating costly on-site blending errors.

#### Typical Properties

##### Stiffening Test

Initial set	Approx. 2 hours at 20°C
Final set	Approx. 4 hours at 20°C
Flow Characteristics:	Fluid - meets CRD-C 611-80 Specification
Shrinkage:	Non-Shrink meets CRD-C 21 Specification
Flashpoint	Not applicable
Operating Temp:	Between 5°C to 200°C. Permissible for use with equipment exposes to the above temp parameters
Storage Life:	Up to 1 year when stored under cover and in dry conditions

#### Yield

One 25kg bag of MULTIGROUT 800 N when mixed with 4 — 4.2 litres of water will yield +13 litres of fluid grout.

Note: Optimum water demands can be verified on site as environmental and placing conditions influence grout / water requirements.

#### Strength Development

The strength of MULTIGROUT 800 N is dependent on the water demands, curing procedure and age of hardened grout. To determine the earliest the equipment or machinery can be put into operation, the above must be considered. Protect from freezing until fully cured for 28 days.

Typical compressive, flexural and tensile strengths of MULTIGROUT 800 N:

Strength in MPa at flowable consistency and tested at 20°C. Age

	Compressive	Flexural	Tensile 1
day	20.0 MPA	2.4 MPA	2.0 MPA
3 Days	28.0 MPA	3.4 MPA	2.2 MPA
7 Days	40.0 MPA	4.9 MPA	3.5 MPA
28 Days	60.0 MPA	7.1 MPA	5.6 MPA

Typical Strength at Fluid Consistency.

Age	Compressive	Flexural	Tensile
1 day	15.0 MPA	2.6 MPA	1.0 MPA
3 Days	22.0 MPA	1.8 MPA	2.0 MPA
7 Days	36.0 MPA	4.3 MPA	3.8 MPA
28 Days	55.0 MPA	6.6 MPA	5.2 MPA

The data is based on controlled laboratory tests as per quality assurance procedure. Slight variations can be expected under prevailing site conditions.

#### Directions for Use

All equipment to be grouted must be free of grease, oil and dirt and the concrete surface must be scabbled, cleaned and be well saturated for 24 hours prior to grouting. Do not mix more grout than can be used in + 30 minutes. Once the grout has stiffened, do not re-temper by adding water.

#### Hot and Cold Temperature

Temperatures of both the grout and all elements coming into contact with the grout should be in the range of 10°C to 26°C. Do not grout in freezing conditions. If outside this range special information on high and low temperature g routing recommendations are available from your local MULTI CONSTRUCTION CHEMICALS' Field Representative.

#### Curing

Cure all exposed areas of grout with MULTICURE 300 C or MULTICURE 200 curing compounds or keep saturated for at least 10 days.

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## **MULTIGROUT 800 N**

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#### **Watchpoints**

- \* Site and laboratory tests should be determined on desired placing consistency rather than strictly on the water content. This must be established prior to placing the grout.
- \* Always place grout from one side only. Do not pour grout from both sides as this will result in entrapment of air creating a gap (air pocket) between the underside of bedplate and grout.
- “ Do not use contaminated water or water in an amount or at a temperature that will produce bleeding, segregation, delayed hardening and low strengths.  
For fatigue and impact resistant grouting, use MULTIGROUT 802 M Metallic Aggregate Non shrink Grout.  
Bulk Grouting - Whenever the thickness of grout is in excess of 100 mm, use MULTIGROUT 815 NP.  
Recommended for bulk grouting.

#### **Packaging**

Supplied in 25kg double lined moisture resistant bags.

#### **Specification Clause**

All grouting shall be carried out where indicated using MULTIGROUT 800 N non-shrink fluid and high ultimate strength grout as manufactured by MULTI CONSTRUCTION CHEMICALS (PTY) LTD to the following specification:

- \* To comply with CRD-C621, ASTM C 109-80 and ASTM C 827 specifications
- “ Cure all exposed grout with MULTICURE 300 C / 200 curing compound.
- \* The grout shall be mixed and use strictly in accordance with the manufacturer's recommendations

#### **Quality Assurance**

MULTI CONSTRUCTION CHEMICALS (PTY) LTD's production and testing programmes comply with local and international testing standards. These stringent testing requirements also comply with CRD-C621, ASTM C 827, ASTM C109-80 and CRO 611-80 specifications.

**Updates:** This data sheet supersedes all previous issues prior to this date: 01/11/98