### 100 NEWTON GROUT

**Product code**
TG 102 packaging listed overleaf

**Description**
100 Newton Grout is an ultra high strength grout specially formulated using a Portland cement powder mix. The mix design consists of a blend of fine and ultra-fine cements, high quality graded sands and a set of synergistic admixtures. The mix design includes special shrinkage compensating components, which give a non-shrink grout in both the plastic and hardened states. Powerful plasticising agents produce a highly flowing grout at low water content.

The product is pre-packaged in 25kg durable, moisture resistant bags ready for on-site mixing only requiring measured water addition. The material readily mixes with water to produce the ultra high strength grout that is easily placed to give exceptional structural support and vibration resistance.

100 Newton Grout is chloride free and can be safely used in contact with reinforcing steel and structural steel elements. The specialised mix design enables placement at low water content leading to good freeze-thaw stability, low water absorption plus resistance to oil, sea water and mild alkali attack.

Placement thickness may be in the nominal range of 10mm to 100mm.

**Uses include:**
- Ultra high strength grout and support systems for:
  - Crane rail tracks.
  - Stanchion bases.
  - Machine bed plates for reciprocating, rotational and impact machinery.
  - Ground anchors.
  - Bridge bearing seats.

**Typical Grout Properties @ 20°C**

**Compressive Strength**
Water addition 4.5 litres per 25kg of 100 Newton Grout

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<table>
<thead>
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<tbody>
<tr>
<td>1 Day</td>
<td>84N/mm²</td>
</tr>
<tr>
<td>7 Days</td>
<td>102N/mm²</td>
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<tr>
<td>28 Days</td>
<td>105N/mm²</td>
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**Mechanical Properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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<tbody>
<tr>
<td>Density</td>
<td>2250kg/m³</td>
</tr>
<tr>
<td>Coefficient of Thermal Expansion</td>
<td>11 x 10⁶ °C⁻¹</td>
</tr>
<tr>
<td>Compressive Modulus</td>
<td>30kN/mm²</td>
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<tr>
<td>Initial Set</td>
<td>260 minutes</td>
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<tr>
<td>Final Set</td>
<td>290 minutes</td>
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**Specification Outline**
Grouting shall be carried out using 100 Newton Grout as manufactured by Tecroc Products Ltd. The product must be stored, handled and placed in accordance with the manufacturer’s instructions.

**Quality Assurance**
Tecroc Products Ltd is a firm of Assessed Capability. The Company’s quality system conforms to BS EN 9002:1994 and is assessed by SGS Yarsley International Certification Services Ltd.

**Standards**
100 Newton Grout has been tested in accordance with the appropriate parts of the following standards:
- BS 1881.
- Corps of Engineers Specification for Non-Shrink Grout CRD C621
- Specification for Highway Works Clause 2601.

**Instructions For Use**

**Preparation**
Formwork should be erected and made grout-tight. The formwork must be designed with sufficient hydrostatic head to ensure grout flow into and across the grouting area. Saturate the grouting area with water. Leave for 1 hour and then blow out any surplus water.

**Mixing**
Pour 4.5 litres of clean water into the mixing vessel for each complete bag of 100 Newton Grout to be used. Slowly add the powder to the water whilst continually mixing. Mechanical mixing should be carried out using either a high torque slow speed drill with a Grout Stirrer or a grout mixer set on slow speed. (High speed or colloidal mixing will cause thixotropy leading to loss of flow.)
100 NEWTON GROUT

Placing
Grout should be placed within 20 minutes of mixing. Continuous placing is important, pouring from one side of the formwork until the grout appears at the opposite side of the grouting area. Do not disturb once grouting has been completed. 100 Newton Grout may be placed at temperatures between 5°C and 45°C. For placing at temperatures outside this range contact the Technical Service Department.

Curing
Placed grout, which is exposed, should be cured in accordance with good concrete practice including water spray and the spray applied curing membrane Polycure.

Precautions
Health and Safety
100 Newton Grout is alkaline when mixed with water and should not come into contact with skin or eyes. Avoid inhalation of dust during mixing and wear safety glasses, dust mask and gloves. If skin contact occurs wash thoroughly with clean water. Should eye contact occur rinse immediately with plenty of clean water and seek medical advice. Full health and safety data are given in Product Safety Data Sheet.

Fire
100 Newton Grout is non-flammable.

Yield
Each 25kg bag of 100 Newton Grout will yield approximately 13 litres of mixed grout.

Storage And Shelf Life
100 Newton Grout will have a storage life of 12 months in unopened bags when kept in dry conditions at a temperature between 5°C and 45°C. Storage at higher temperatures or high humidity may reduce shelf life.

Packaging And Ordering
100 Newton Grout is supplied in 25kg bags.
25kg Bags Product Code TG 102
For further information and sales please contact your local Tecroc Products office as listed below.

Tecroc Products Ltd products are guaranteed against defective materials and manufacture. Products are sold subject to the Tecroc Products Ltd Terms and Conditions of Sale, copies of which are forwarded on invoice and are available on request. Tecroc Products Ltd endeavours to ensure that the above data and any further advice is correct, however, it cannot accept any direct or indirect liability for the use of its products as such usage is beyond its control.