



Technical Data Sheet

KEYGROUT

High Strength, thixotropic, polyester grout

ADVANTAGES:

- Rapid strength gain
- Vibration resistant
- Corrosion resistant
- High strengths
- Extremely durable
- Weather resistant
- Can be used in damp conditions

PRODUCT:

A high strength, fast setting, fast curing grout of thixotropic consistency.

PURPOSE:

Designed for the grouting and anchoring of steel bars and bolts into concrete, masonry and brickwork where speed of installation and early load bearing capability is required.

PACK:

0.5, 1, 2.5 kg

A SUBSIDIARY OF DON CONSTRUCTION PRODUCTS LTD., U.K.



DESCRIPTION:

KEYGROUT is a two part, pre-measured blend of polyester resins, with selected grade fillers, which, when mixed, offer a high strength, fast setting, fast curing grout of thixotropic consistency. Designed for the anchoring of steel bars and bolts into concrete, masonry and brickwork.

USE:

KEYGROUT can be used for a permanent installation of reinforcement, dowelling and starter bars, foundation bolts, base plates, handrails, safety fences, wall tiles, railway tracks, tile back anchors and ground anchors for tower cranes.

Due to its thixotropic nature KEYGROUT can be used in vertical, horizontal and overhead situations where the hold diameter exceeds the bar diameter by not less than 4mm and not more than 25mm.

TYPICAL PROPERTIES:

Compressive strength:

| | |
|-------------------------------------|------------------------|
| 24 hours | 50N/mm ² |
| Ultimate | 85N/mm ² |
| Pot life | 20 mins. at 30°C |
| Density | 1920 kg/m ³ |
| Temperature Range in application | 0°C - 40°C |
| in service | -20°C - 60°C |

Typical axial pull out strengths in 48N/mm² concrete using mild steel studding in holes drilled by rotary percussive equipment.

| Hole Diameter mm | Embedment Length mm | Failure load tones |
|------------------|---------------------|--------------------|
| 12 | 75 | 3.2 |
| 14 | 100 | 5.3 |
| 16 | 125 | 7.1 |

Failure in all cases was in the concrete. Chemical resistance – cured KEYGROUT is resistant to water, oils, petrol and greases and most acids and alkali solutions.

Anchor Design:

The strength of the cured KEYGROUT permits the production of anchors capable of high loadings. The ultimate load will be governed by the following factors:

- Strength of substrate.
- Length of bond.
- Dimensions and type of bar.
- Hole drilling and preparation.

HOW TO USE:

1. Preparation

Holes should be formed using rotary percussive drilling techniques. Diamond drilled holes should be scabbled or underreamed. Pre-cast holes should have roughened sides. All dust and drilling debris should be removed. Bars and bolts should be degreased and all rust removed.

2. Mixing

KEYGROUT is supplied in preweighed two packs. The content of plastic bag should be emptied in metal container and mixed thoroughly to a smooth paste. Once mixed, use it in one operation. Bigger pack can be mixed as required by mixing / 1 volume of the resin component with 2 volumes of the powder.

3. Installation

The grout should be injected to the bottom of the holes to avoid entrapment of air.

Due to its thixotropic nature, loss of KEYGROUT from the hole will be insignificant.

KEYGROUT is designed for use where the annular gap between the hole and bar is 12mm or less.

4. Cleaning

All equipment should be cleaned, with in pot life of the grout with TOLUENE OR XYLENE.

5. Storage

Six months, in dry conditions below 30°C in manufacturer's undamaged sealed containers, out of direct sunlight.

HEALTH AND SAFETY:

Work in well ventilated areas. Skin contact should be avoided – use gloves, barrier creams. Contaminated skin should be washed with soap and water – NOT SOLVENT. The use of goggles is recommended, but should accidental eye contamination occur, wash thoroughly with plenty of water and seek medical treatment immediately.

FIRE:

KEYGROUT resin is flammable. No naked flames allowed. DO NOT SMOKE during use.

FIRE RESISTANT TO CREEP:

At operating temperatures above 60°C, the creep of KEYGROUT under load may become significant. Resin anchors should not be used where structural load bearing performance has to be maintained in anchors subjected to fire conditions.

HOW TO SPECIFY:

KEYGROUT shall be used strictly in accordance with the instruction of the manufacturers DON CONSTRUCTION CHEMICALS INDIA LTD.

The information given in this data sheet on both current development work and many years field experience. Whilst every effort is made to ensure that the information is reliable. We cannot accept responsibility for any work carried out with our materials as we have no control over methods of application, site conditions etc.

In view of the continuing research and development being undertaken in our laboratories we advise customers in their own interest to ensure that this data sheet has not been superseded by a more up to date publication. All products are sold subject to our standard conditions of sale which are available on request.

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