

REO PEG REINFORCING SUPPORT SYSTEM

Product

- The Reo Peg is a polypropylene peg to support steel reinforcing bars and provide a height measure to which strip foundations are to be concrete poured.
- The Reo Peg is for use as a supporting system for steel reinforcing bars in concrete foundation walls and footings for residential and light commercial industrial buildings.



Building Regulations

1. New Zealand Building Code (NZBC)

The Reo Peg if used and installed in accordance with the statements and conditions of this schedule, will meet, or contribute to meeting, the following provisions of the NZBC

- Clause B1 Structure: Performance B1.3.1, B1.3.2 and B1.3.4 for the relevant physical conditions of B1.3.3 See Section 5
- Clause B2 Durability: Performance B2.3.1a, not less than 50 years. See section 6.
- Clause F2 Hazardous Building Materials: Performance F2.3.1. The Reo Peg will not present a health hazard to people.

Product Information

2. General

2.1 The Reo Peg is a white polypropylene peg, 450mm long. 30 mm wide and 3mm thick, stiffened by a rib 18mm wide and 2mm thick. The driving cap of the peg is oval in shape, 30 by 20 by 5mm thick. The bottom of the peg is tapered to a point to assist penetration of the ground.

2.2 The Reo Peg contains two vertical slots. Each slot can hold one steel reinforcing bar up to 12mm in size. The bottom of the upper slot is located 85mm from the top of the peg, and the bottom slot is positioned 125mm below the upper slot at 210mm from the top of the peg.

2.3 A horizontal line 1mm wide and approximately 0.5mm proud of the surface, representing the desirable ground surface position, is located 150mm from the bottom of the peg. At a position 60mm further up the peg there are four horizontal triangular fillets which brace the rib section of the main peg section. These also may deter ground water travelling up the peg from reaching the reinforcement.

3. Packaging and Storage

3.1 Reo Pegs are supplied in lots of 50 per plastic bag with 10 bags per carton.

3.2 Reo Pegs must be stored so they are protected from damage. If stored for any length of time they should be kept out of the sunlight.

Design Information

4. General

4.1 The Reo Peg is designed to support steel reinforcing bars up to size D12 mm during the placement of concrete for reinforced concrete foundation walls or footings (up to 300 mm in height) which support concrete slab-on-ground floors, masonry walls, or other forms of construction, in accordance with NZS 3604, or to specific design.

4.2 The Reo Peg is not suitable for reinforced concrete foundation walls or footings which require a damp proof membrane beneath them.

4.3 The Reo Peg is suitable for well compacted clay, sand or alluvial type soils. However, it is not suitable for rocky ground or soils containing stones larger than about 50mm, which are likely to deflect and damage the Peg during driving and prevent it from remaining plumb.

4.4 The Reo Peg is a complete support system for reinforcing, eliminating the need for horizontal bracing except for vertical starter bars which are more than 1.5 m long.

4.5 The Reo Peg locates the reinforcing to achieve the required concrete cover. Minimal contact area with reinforcing allows maximum encapsulation with concrete.

4.6 A single row of Reo Pegs can be used to support a 2-bar vertical cage or a double row of Pegs can be used to support a 4-bar cage.

5. Strength

The Reo Peg is strong enough to withstand normal driving loads from a hammer. In firm ground it will be strong enough to withstand horizontal concrete placing loads without undue deformation and damage, and stiff enough to prevent permanent displacement of the steel reinforcing bars beyond required tolerances for foundation walls and footings.

6. Durability

The polypropylene Reo Peg will not adversely affect the durability of the concrete in which it is encased. Nor will it degrade over the life of the building, sufficient to permit the entrance of corrosive elements which could adversely affect the performance of the steel reinforcing bars in the concrete.

Installation Information

7. General

7.1 The installation of the Reo Peg must be in accordance with this specification.

8. Two-Bar Vertical Cage or Trench-Mesh

8.1 Where a two-bar vertical cage is to be installed, the Reo Pegs are centrally located at 1.5 m centres maximum.

8.1 The Reo Peg is driven, preferably with a mason's hammer, to a depth of between 135 and 165 mm so that the top of the peg is level with the top of the proposed concrete footing and the Peg itself remains plumb.

8.2 It is recommended that lugs which hold the reinforcing bars in place all face the same way to facilitate fittings of cages.

8.3 The steel reinforcing bars for the wall or footing are placed in the vertical slots of the Reo Peg. The required concrete cover clearances to the bars are checked and any necessary adjustments made before placing the concrete.

9. Two-Bar Horizontal Cage or Four-Bar Cage

9.1 The made-up cage is positioned in the trench and the Reo Pegs located transversely to suit the cage and longitude at maximum 1.5 m spacing. Reo Pegs are installed as per Sections 8.2 and 8.3 above.

9.2 The cage is lifted into position and placed in the vertical slots of the Reo Pegs and concrete placed as per Section 8.3 above.

Basis of Specification

The following is a summary of the technical investigations carried out.

10. Investigations

10.1 Site visits have been carried out to assess installation methods and observe the performance of the Reo Pegs during the placement of concrete.

10.2 Issues of strength, durability and hazardous building materials have been assessed by an independent assessor and found to be satisfactory.

11. Quality

11.1 The manufacturer of the product has been examined by an independent assessor and details of the quality and composition of the materials used were obtained and found to be satisfactory.

11.2 Urban Building Products Limited is responsible for the quality of product supplied.

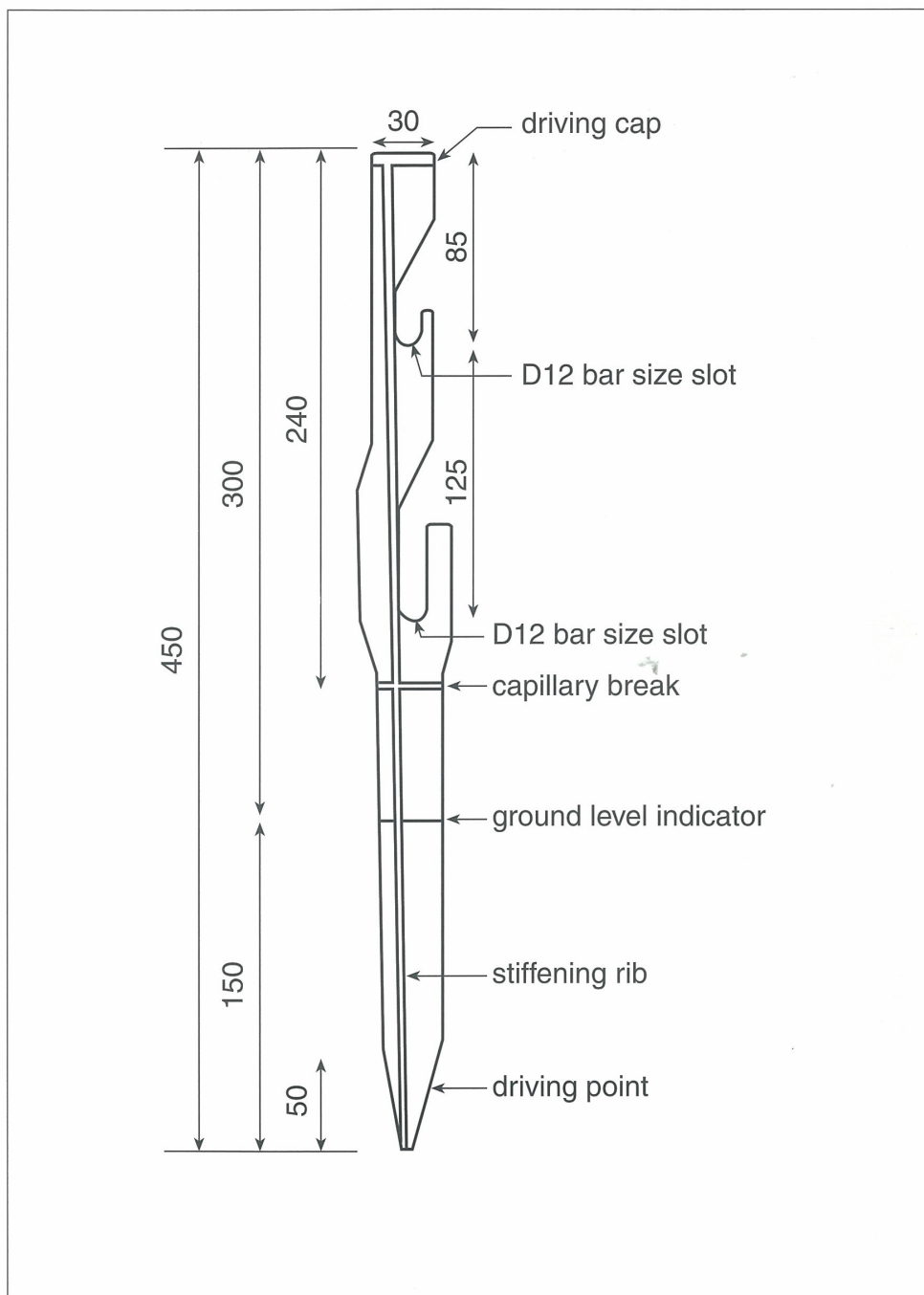
11.3 Quality on site is the responsibility of the installer.

12. Source of Information

- New Zealand Building Code Handbook and Approved Documents, Building Industry Authority, 1992.
- NZS 3604: 1999 Timber Framed Buildings.
- The Building Regulations 1992, including September 1997 Amendment.

13. Patent

The Reo Peg is patented under patent number 333028



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