

DEPARTMENT OF PUBLIC WORKS AND INFRASTRUCTURE

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DEPARTMENT OF PUBLIC WORKS

AGRÉMENT SOUTH AFRICA

(Approval of innovative construction products and systems)

Notice is hereby given that Agrément South Africa has, with effect from 14 December 2021, issued an Agrément certificate, details of which appear in the schedule hereto.

SCHEDULE

Agrément Certificate 2021/631

Subject: Eldoloo VIP Top & Pit Structure System

Certificate holder: EldoFox (Pty) Ltd

Description: Eldoloo VIP Top & Pit Structure feature a toilet top structure and pit lining system. The system may be used in conjunction with either Ventilated Improved Pit (VIP) Pedestals, Urine Diversion (UD) Pedestals, Pour Flush Pedestals or Waterborne Pedestals (Cistern). The sanitation components should be installed in a top structure/closet with a floor, walls and roof of material adequate for its purpose and the closet should be provided with a door to ensure privacy of occupants in accordance with the National Building Regulations, **SANS 10400-Part Q**.

The system components are described below as follows:

Top Structure

The Top structure consists of a reinforced floor slab, reinforced side and back wall panels, a reinforced concrete roof and galvanized steel door. The top structure has 3 optional wall configurations; the V-section (standard) panels; C – section panels; and U – section panels. All top structures use the same base and roof slabs.

Reinforced floor slabs

innovative construction product assessments

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The panels are 55 mm thick with minimum concrete strength of 40 MPa. Base slabs consist of a main slab of dimensions 1 500 mm x 640 mm with a tapered hole and recesses for the pedestal, a front cover slab of dimensions 1 500 mm x 660 mm with recesses for the remaining side panels, a back cover slab of dimensions 1 500 mm x 300 mm with a tapered hole for a ventilation pipe. The main (middle) slabs may have two tapered holes if required for a double pit toilet configuration.

Roof

A roof slab of dimensions 1 360 mm x 1 040 mm with a lip overhang at the front.

V section (Standard) wall panels

The panels are all 35 mm thick with minimum concrete strength of 40 MPa. The design incorporates six (6) vertical panels (two back panels of 1 950 mm x 425 mm with 3 ventilation holes 150 mm diameter from the top, two rear side panels of 1 950 mm x 640 mm, and two front side panels of dimensions 1 950 mm x 640 mm with lips for attaching the door) fixed together with 5 mm mild steel (M5) threaded rods. Each wall panel is fixed with two (2) rods. The wall panels are anchored to the floor slab with four (4) x 6 mm U bolts. The roof is secured to the walls with two 5 mm long tie rods.

C- section wall panels

The panels are all 40 mm thick with minimum concrete strength of 40 MPa. The design incorporates eight (8) complete C sections of dimensions 920 mm (back) x 1 280 mm (side) x 245 mm high. The sections are laid with mortar placed between each panel. The roof is secured to the walls with mortar.

U section wall panels

The panels are all 35 mm thick with minimum concrete strength of 40 MPa. The design incorporates three (3) horizontally placed back wall panels of dimensions 850 mm x 650 mm with the upper panel having ventilation holes, and three (3) side panels on each side of dimensions 1 280 mm x 650 mm with a lip for attaching the door. The side wall panels are fixed together with 8 mm U bolts two (2) per panel. The back wall panels are connected to the side panels with tie rods, with two (2) tie rods per panel. The wall panels are anchored to the floor slab with four 6 mm U bolts. In the U-section design the roof is secured to the walls via four (4) 6 mm roof clamps.

Doors

The door is 0.5 mm full hardened galvanized steel. The doors have vertical ridges with three (3) horizontal lip channels attached across the doors. There is an additional door strip attached to the non-hinge frame into which the door latch is slotted. A toilet roll holder is attached to the inside of the door. The hinges and other fittings are attached to the door with rivets.

The three options for a door (galvanised mild steel 1 750 mm x 810 mm):

- light duty door with two (2) spring loaded hinges
- heavy duty door with three (3) spring loaded hinges and
- swivel door with reinforced swivel dowel holding attachments.

Alternatively, a SABS or Agrément South Africa approved door may be used.

Pit Lining Structure

The pit lining systems comprises either a 1.75 m³ pit structure (for urine diversion, pour flush or double pit VIP systems); or alternatively a 2.5 m³ structure (for standard single pit VIP systems). A double pit lining configuration is also an option.

Lintel shaped beams are placed at the bottom of the pit to correctly position the wall panels and to ensure stability and rigidity. Similar lintel shaped beams are placed on the top of the pit lining panels to provide a level and uniform base for the cover slabs. Two lengths of beam are used 1 500 mm and 1 360 mm. The beams are lintel shaped but cast with a deeper square groove to accommodate the wall panels which are slotted into the recesses.

Side panels comprise horizontal panels (either six (6) panels for a 2.5 m³ pit or four (4) panels for a 1.75 m³ pit). End panels comprise two (2) vertically placed panels on each end either 815 mm high (1.75 m³) pit or 1 220 mm high (2.5 m³) pit. The side and end panels are joined together with 6 mm coach screws 60 mm long that pass through cast holes in the side panels are screwed into the nylon inserts in the end panels.

The Agrément certificate contains detailed information on the system and can be accessed at <http://www.agrement.co.za>

Copies are obtainable from: Chief Executive Officer (CEO)

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