

DEPARTMENT OF PUBLIC WORKS

NO. 188

22 FEBRUARY 2019

AGRÉMENT SOUTH AFRICA
(Approval of innovative construction products and systems)

Notice is hereby given that Agrément South Africa has, with effect from 29 November 2017, issued an Agrément certificate, details of which appear in the schedule hereto.

SCHEDULE
Agrément Certificate 2017/556

Subject: Fishnet and Polyethylene Terephthalate (PET) Bottles Building System

Certificate holder: SA Samarpan Foundation NPC

Description: Fishnet and Polyethylene Terephthalate (PET) Bottles Building System is for single storey buildings. The system utilises fishnets, 500 millilitres (ml), 1 litre (l) and 2 litre PET bottles. The foundations are 600 mm wide x 150 mm deep conventional concrete strip footing with foundation-wall and plinth constructed of only the 2 litre PET bottles. Foundations to be design by professional engineer as per the geotechnical conditions”

The external and internal walls are constructed of 500 ml, 1 litre or a combination for the two PET bottles sizes depending on availability. The bottles are filled either with sand or fly ash and packed in an interlocking pattern and imbedded in a cement mortar mix. Sand is natural soil with clay content of less than 14% and free of any vegetable matter and generally has a bulk dry density of about 1500 kg/m³. The walls are clad with a Nylon 6 fishnet, which acts as plaster-key and plastered with 30 mm thick plaster on both sides. The walls are then finished with good quality paint.

Roofs are either the conventional timber/ steel trusses on a perimeter concrete ring beam with light- or heavy-weight cladding. Alternatively, the roof is 190 mm thick flat slab comprising 100 mm thick reinforced concrete slab at the bottom and 30 mm thick concrete topping encapsulating a 60 mm thick polystyrene core. Roofs are always the responsibility of a registered professional competent engineer.

Electrical and plumbing services are positioned in place within or outside the PET bottles before the application of the plaster.

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

Copies are obtainable from: Chief Executive Officer (CEO)
Agrément South Africa, P O Box 72381, LYNNWOOD RIDGE, 0040