

# PRODUCER STATEMENT

**PRODUCT DESCRIPTION:** 300mm x 600mm Polyethylene Storm water Sumps

**PRODUCT CODE:** 750.300R or 750.300SQ

**PRODUCT SIZE(s):** 300mm or 300mm x 300mm by 600mm High

#### **PRODUCT HISTORY:**

Manufacture of this product commenced in the early/mid 1990's when it was identified that drainlayers needed a lightweight sump to install in household applications, rather than the historical concrete sumps that were being produced at the time.

**PRODUCT LIFE:** By convention, plastics pipe systems are often designed on the basis of 50 years extrapolated test data. This is established international practise but is not intended to imply the service life of the drainage pipes is limited to 50 years. For correctly manufactured and installed systems, the actual life cannot be predicted, but can logically be expected to be well in excess of 100 years before major rehabilitation is required.

#### PRODUCT INFORMATION: (Purpose/Application)

Produced for use in storm water systems, these sumps provide for a versatile, lightweight, safe cost effective means of connecting new and existing households to the main storm water system.

Due to its size and light weight the "Strata" Storm water Sump could be a one person operation to install if required and it also means that the installer or service person is not able to enter the chamber.

The "Strata" Storm water Sump is designed to have excellent corrosive and chemical resistance. Along with it being suitable for ranges in temperature of up to 60°C, Polyethylene has high impact properties that allow it to operate at low temperatures. Overall Polyethylene was chosen to provide a service life of not less than 60 years.

Volume (V) of the sump = 42.4 Litres. The theoretical flow rate through the outlet is 17.38L/s.

A type-one water sump is suitable for an area of  $\rightarrow$  4500 / I m2 = 4500 / 100 = 45m2. This correlates to a water flow through rate of 45m2 x 16.7mm = 750 litres in 10 min  $\rightarrow$  75 litres per minute

Testing carried out by Strata on the 750.300R sump demonstrated that the unrestricted out flow of the sump is more than 900 litres per minute (15 litres per second) which correlated with empirical flow calculations.

# Strata Plastics

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# **METHOD OF CONSTRUCTION:**

The process of manufacturing for this "Strata" Storm water Sump is by the rotomoulding process.

# **RAW MATERIALS:**

1. Cotene 9050 Ultra UV & Polyethylene. Complies with AS/NZS 4766 6 - 8mm wall thickness

# EQUIPMENT USED:

1. Biaxial roto-moulding machine

# **MANUFACTURING PROCESS:**

- **1.** The biaxial roto-moulding machine is set up to suit the correct mould.
- **2.** The mould is cleaned and prepared for use.
- **3.** A predetermined amount of granules are weighed and placed into the prepared mould. The mould is then closed and loaded onto the biaxial roto moulding machine.
- **4.** The biaxial roto-moulding machine is started and the heating process continues for a predetermined period of time.
- 5. On completion of the heating process, the biaxial roto moulding machine is turned off and the product allowed too completely cool.
- **6.** On removal from the mould the chamber has any rough edges removed and a final check is made to ensure it is a complete fit.
- 7. Random tests are made to the chambers to ensure they are water tightness around all joints.
- **8.** On completion of manufacture, the sump is made ready for shipping.

#### MANUFACTURERS DETAILS: Strata Precision Plastics 2013 Ltd

#### MANUFACTURERS FACTORY'S: 789 Te Rapa Street, Hamilton

**QUALITY MANAGEMENT:** Strata Precision Plastics are accredited by Telarc NZ as having a compliant Q-Base Quality Management System.

# **INSTALLATION REQUIREMENTS:**

The "Strata" Storm water Sump is designed to suit connections onto a range of different pipe types. The most common pipes connected to are uPVC SN4 Storm water or DWV Sewer pipe. Both these are achieved with the use of a standard pipe socket that are used in every day applications. Accepted methods of jointing are all produced by Strata Precision Plastics 2013 Ltd in accordance with any relevant standards. These may include AS/NZS1260 and AS/NZS 1254

- **1.** Excavate as required. Shore the excavation as required ensuring safety.
- 2. Trim the excavation base down to 150mm below the invert of the storm water sump

- **3.** Select the location of the storm water joint. This joint must be carried out by an approved experienced drain layer. Connect the house connections to the sump using approved connector.
- **4.** Test the installation by the use of an air or water test as required by the local authority.
- **5.** Carefully place bedding and surround with controlled compaction and backfill with compacted granular aggregate ensuring they conform to the requirements of the local authority.

# MAINTENANCE REQUIREMENTS:

The silt trap will require periodic removal of silt that has been built up over time.

#### PRODUCT LABEL



# PRODUCT PHOTO &/or DRAWING:

