

# Megaflo® Model Specification

## Rigid Panel Subsurface Pavement Drains

### 001. DESCRIPTION

This section includes the construction of subsoil drains using rigid panel drains.

### 002. STANDARD SPECIFICATION

This specification shall be read in conjunction with the following standards, which are deemed to form part of this specification.

### 003. MATERIALS

The rigid panel drain shall be of a size as specified in the Drawings and Schedule of Prices.

The rigid panel drain shall have a high density polyethylene corrugated plastic core of a flat pipe configuration with a well-defined invert.

The rigid panel drain shall support the filter Geotextile wrap over more than 50% of its surface area. The clear water open area or slot openings of the rigid panel drain shall have an area greater than 5%.

Clear water opening is the area of drainage slots expressed as a percentage of the area of the panel. The subsoil drain shall be constructed in accordance with this specification and in conformity with the lines, grades and cross sections shown on the drawings.

The filter aggregate shall comply with the manufacturer's recommendations.

The rigid panel drain shall have the following specifications.

Panel Properties		Standard	Units	Value (Typical)
Panel Width		ASTM D 2122	mm	>40
Slot Size		ASTM D 2122	mm	2.8 x 30
Compressive Strength	Horizontal	ASTM D 2412 (mod)	kPa	>200
	Vertical			>300
Change in Core Cross-sectional Area under confining pressure of 156.5kPa		ASTM 6244	%	<5

The nonwoven filter geotextile shall have the following specifications:

Mechanical Test	Standard	Units	Value (Typical)
Wide Strip Tensile Strength	AS3706.2-12	kN/m	11.0
Grab Tensile Strength	AS3706.2-12	N	720
Trapezoidal Tear Strength	AS3706.3-12	N	300
CBR Burst Strength	AS3706.4-12	N	2000
Hydraulic Test	Standard	Units	Value (Typical)
Pore Size	AS3706.7-03	µm	110
Permittivity	AS3706.9-12	s <sup>-1</sup>	3.20
Coefficient of Permeability	AS3706.9-12	m/s x 10 <sup>-4</sup>	43
Flow Rate @ 100mm Head	AS3706.9-12	l/m <sup>2</sup> /s	320

#### 004. STORAGE, PACKAGING, TRANSPORTATION

The rigid panel drain shall be:

- Packaged, stored and transported in such a way as to prevent damage.
- Stored under protective cover or wrapped with a waterproof, opaque UV protective sheeting including the ends of rolls to avoid damage prior to installation.
- Not be stored on the ground or in a manner in which may result in it being crushed or affected by heat, sunlight or moisture.

#### 005. CONSTRUCTION

##### General

Construction of the rigid panel subsoil drains shall follow the Manufacturer's Installation Guidelines unless otherwise directed by the engineer.

##### Trenching

Trenches shall be excavated to the dimensions and grades shown or as directed. Trenches for rigid panel drains shall not be less than 100mm wide  
No bedding is required for rigid panel drains.

##### Laying

Rigid panel drains are to be located against the side wall of the trench or centrally where water drains in from both sides as shown on the drawings.

##### Backfill

The trench shall be backfilled in accordance with the cross-section shown on the drawings or in accordance with the manufacturer's guidelines.

##### Outlets

Outlets shall be installed at low points and intervals as required on grades. The outlet pipe shall be installed at a minimum grade of 4% to ensure positive outflow. Where the grade of the Megaflo® is greater than 4%, the outlet pipe shall be installed greater than 4% to ensure positive outflow.