

# **Underground Drainage Systems**



# FloPlast

### HIGH QUALITY UNDERGROUND DRAINAGE SYSTEM



FloPlast are an established market leader in the manufacture and supply of Plastic Building and Plumbing systems in the UK. The Company's specialist areas are PVC-UE Roofline, Window & Cladding Systems, Rainwater Systems, Soil & Waste Systems, Hot & Cold Plumbing Systems and Underground Drainage Systems.

FloPlast Underground Drainage Systems comply where applicable with the requirements of the following British Standards.

BS EN 1401-1: 2009 PVC-U

Underground Drainage Systems (SN4)

BS EN 13476-2: 2007

Structured Wall Piping Systems (SN4)

BS4660: 2000 PVC-U

Ancillary Items (Rodding Eyes, Access fittings etc)

BS EN 124: 1994 Access Covers, Gratings and Frames.

BS EN 13598 - 1: 2010 Plastic Inspection Chamber for Drainage.

"Plastic piping systems for non-pressure underground drainage and sewerage. Unplasticised polyvinyl chloride (PVC-U). Polypropylene (PP) and Polyethylene (PE)."

Part 1: Specification for ancillary fittings including shallow inspection chambers.

For CE DOP's (Declaration of Performance), please refer to our website at www.floplast.co.uk.



Drainage Pipe has a British Standard Kitemark.

# Standards/Quality Control









FloPlast operations embrace quality and environment management systems which have been accredited by BSI to BS EN ISO 9001:2008 Certificate No. FM 501414, BS EN ISO 14001:2004 Certificate No. EMS 538445 and BS EN ISO 18001:2007 Certificate No. OHS 593622 501414.

All products are subject to continuous quality control procedures and products manufactured to British Standard Specifications are marked accordingly.



















#### Transport, Handling & Storage

**FloPlast** PVC-U pipes are supplied in secure bales bound with straps within timber frames, **FloPlast** recommend that movement of bales is carried out by fork lift or other mechanical device using webbing or rope strings.

The bales may be stacked up to a maximum of three high, providing that the timber frames are placed on each other.

Fittings are generally supplied in plastic bags and should be stored away from direct sunlight. If they have to be stored outside, the bags should be opened to prevent temperature build-up.

#### **Application**

**FloPlast** Underground Drainage Systems are designed for use in gravity drainage and sewerage installations at depths of up to ten metres.

#### Composition

All drainage pipes and the majority of fittings are manufactured from unplasticised Polyvinyl Chloride (PVC-U). Inspection chambers, 0.90° adjustable bend, gully traps and gully grids are manufactured from polypropylene.

#### Colour

Pipes and fittings are manufactured in golden brown with exceptions as indicated in the product guide.

#### **Terms & Conditions of Sale**

Goods are sold subject to our Standard Terms and Conditions of Sale, copies of which are available upon request.

**FloPlast Limited** reserve the right to modify or extend any product range or published information without prior notice.





## 110MM PIPE & FITTINGS BS 4660:2000, BS EN 1401-1:2009, BS EN 124:1994, BS EN 13598 - 1:2010

- FloPlast socketed underground pipe incorporates the latest blown end technology. The easy fit rubber seal is held in place via a circular plastic insert allowing a retention of the seal in transit and a perfect connection for jointing.
- All Push-Fit underground fittings have a captive seal and snap cap which are designed to be user-friendly - no sharp edges, and with space restrictions in mind, allow for an easy fit connection. The seal is double ribbed, and the sockets incorporate a recessed area to provide space for the rubber seal to locate as the pipe is inserted, forming a high-capacity pressure point.

BS EN 1401:2009 / BS 4660:2000 BS 7158:2001 / BS EN 124:1994	110mm	160mm
Hepworth	✓	1
Brett Martin	✓	1
Osma/Wavin	✓	1
Polypipe	✓	1
Polypipe Terrain	✓	1
Marley	1	1
Hunter	1	1





#### **FloPlast Installation Videos**

Our step-by-step installation videos (available online), make it clearer and easier to get to grips with the all the technical elements involved in what may be a complex process. What's more, there is also a downloadable pdf guide to aid whilst on site.









## **110MM PIPE & FITTINGS** BS 4660:2000, BS EN 1401-1:2009, BS EN 124:1994, BS 7158:2001







	Product	Code
<b>**</b>	3m Pipe-plain ended 6m Bale Quantity - 50	D043 D046
<b>S</b>	3m Pipe-single socket 6m Bale Quantity - 50	D143 D146
Pipe couplings:		
C	Single socket coupling	D124
	Double socket* coupling *Removable centre stop for use as slip coupling	D105
Single socket bends	:	
Control of the Contro	87½° Bend (Socket/Spigot)	D161
	45° Bend (Socket/Spigot)	D163
	30° Bend (Socket/Spigot)	D164
An and a second	15° Bend (Socket/Spigot)	D167
Double socket bend		
	87½° Bend	D561
	45° Bend	D563
	30° Bend	D564
	15° Bend	D567
	87½° Rest Bend	D571
	87½° Settlement Rest Bend	D570
	0-90° Adjustable Bend (PP - do not solvent weld)	D560
110mm non-return v	ralve:	
1	110mm non-return valve - single flap	D550
Long Radius Bends:	87½° Plain End	D281
	45° Plain End	D283
	87½° PE with channel access	D581
	45° PE with channel access	D583
	DrainGuard Black (Fits Square & Round downpipe)	DG1

	Product	Code
Equal Junctions:	87½° Junction (Double Socket)	D190
	45° Junction (Double Socket)	D210
	87½° Junction (Triple Socket)	D191
	45° Junction (Triple Socket)	D211
Access Fittings:	87½° Access Bend (Socket/Spigot)	D169
-	Access Pipe (Socket/Spigot)	D274
	Screwed Access Cap	D292
The state of the s	Channel Access Pipe PE 1.5m	D870
Rodding Points:		
	PVC Oval rodding point (Spigot)	D881
	PVC Oval rodding point (Socketed)	D882
	PVC Sq. rodding point (Spigot)	D883
	PVC Sq. rodding point (Socketed)	D884
	ed access cover suitable for a loading up to 10 kN the cover is supported by a concrete plinth).	
	Universal Gully Trap (Socketed/Spigot 45°)	D500
P	Low back 'P' Trap	D501
	Leaf/debris Interceptor Gully Black	D94
	Spare square grid (Polypropylene)	D502
	Square blank cover grid	D508
	Square Hopper incl. Polypropylene grid	D504
	Rectangle blank cover grid	D507
	Rectangular Hopper incl. Polypropylene grid	D506



## 110MM PIPE & FITTINGS BS 4660:2000, BS EN 1401-1:2009, BS EN 124:1994, BS EN 13598 - 1:2010

#### **Features & Benefits**

- Provides an efficient means of waste water drainage and foul discharge from above ground drainage systems.
- Manufactured in PVC-U to give a strong durable product, lightweight and easy to work with and suitable for high temperatures and waste discharge.
- Fittings have an aesthetic modern look, are compact in size yet remain within the British Standard specification.
- Push-Fit joint through an innovatively designed seal and snap cap system.
- Comprehensive range of fittings to suit most installations and which integrate with all FloPlast Above and Below Ground Drainage Systems.
- Colours available: Terracotta.

	Product	Code
Ancillaries:		
Plantitude State Spanish	800gm Lubricant gel Water Council Approved KIWA KM 51564 BS6209	SG800
	100gm Silicone grease	SG100
San	40ml Silicone lubricant spray (New compact size) Available from September 2014	SL40
	125ml Solvent Cement ( BS6209	SC125
Plantani	250ml Solvent Cement ( €	SC250

	Product	Code
Bottle Gully Traps:		
	Bottle Gully Circular Grid	D510
	Bottle Gully Rectangular Grid	D520
	Back Inlet Bottle Gully Rectangular Grid	D530
	Back Inlet Bottle Gully Circular Grid	D540
	Round Hopper & Grid (215mm diameter with height adjustment of 32mm)	D514
	Rectangular Hopper & Grid (295mm x 216mm overall size with height adjustment of 32mm)	D524
Adaptors:	200mm Riser	D505
Adaptors:	110x50mm Waste adaptor (Grey/black)	SP95
	110x68mm Rainwater adaptor (Grey/black)	SP96
	Universal Waste adaptor (32/40/50mm)	D95
0	Universal Rainwater adapter $_{\left[ Sq/Rd\right] }$	D96
	80x110mm adaptor	D97
	160x110mm Level Invert (Socket/Spigot)	D99
	Supersleve Clay adaptor DS (Black)	D100
	Hepsleve Clay adaptor DS (Black)	D101
	Drain Connector (Grey/black) Connects directly into socket of a cast iron clay or plastic pipe system to provide a socket for plastic pipe.	SP107
BBA CE	Flexi-coupling 98m -115mm	D102
A A	Flexi-adaptor A= 98m - 115mm B= 120mm - 136mm	D103
	Socket plug	D296



## 110MM PIPE & FITTINGS BS 4660:2000, BS EN 1401-1:2009, BS EN 124:1994, BS 7158:2001



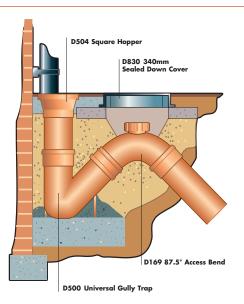
	Product	Code		Product	Code
Large Inspection Ch	namber - 450mm Diameter (LIC):		Mini Access Chan	nber - 300mm Diameter (MAC):	
	270mm deep Chamber Base 5×110mm flexible inlets Supplied with 4 socket plugs (Allows for 0·20° of movement)	D900		270mm deep Multi inlet Chamber Base 5x110mm flexible inlets Supplied with 4 socket plugs (Allows for O·20° of movement)	D800
	270mm deep Chamber Base 5x110mm fixed inlets Supplied with 4 socket plugs	D910		270mm 45° inlet Chamber Base 3x110mm flexible inlets Supplied with 2 socket plugs (Allows for 0:20° of movement)	D801
	235mm Extension riser (Can be cut to size)	D915		270mm 90° inlet Chamber Base 3x110mm flexible inlets Supplied with 2 socket plugs (Allows for 0·20° of movement)	D802
0	Riser sealing ring (Use with each Riser)	D935		270mm 45° Inlet Chamber Base 3x110mm fixed inlets	D810
	450mm Plastic cover & frame (35kN)	D930	(A)	Supplied with 2 socket plugs	
	450mm Plastic Cover & Frame with 350mm restricted access	D931		100mm Chamber riser with integral rubber ring (60mm cut down facility)	D820
	(35kN. For use with I.C. over 1.2mtr deep up to 3mtr)			200mm Chamber Riser with integral rubber ring (60/100/150mm cut down facility)	D822
To conform with new docu D931 as required).	ment H Building Regulations H2000, use D930 or			340mm Sealed screw down cover & frame	D830
	Cast Iron cover & plastic frame with 350mm restricted access (35kN. For replacement purposes only)	D923		(35kN) 300mm Square/Round	D932
S	450mm Square/Round block paving cover	D933		Block Paving Cover	
	450mm Ductile Iron cover/frame Conforms to the requirements of SfA7.	D934			



#### **UNDERGROUND DRAINAGE**

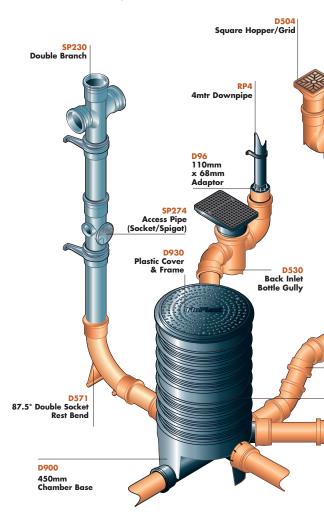
## Installation Guide - Universal Gully Trap with access facility

- The gully should be assembled out of the ground.
- Place the gully on a substantial base e.g.
   Pre-cast concrete slab, bricks etc and stabilise by concreting base up to the level where the supporting feet meet the gully body. Ensure that concrete does not enter the ring seal joint.
- Connect the Access Bend (D169) onto the 45° spigot end of the gully using FloPlast Silicone lubricant to assist with easy insertion.
- Make connection to drainage run using socketed pipe (D146).
- Backfill with suitable material to the required level.
- To complete the access installation, set in concrete an airtight 340mm Sealed PVC Cover and Frame (D830).





D560 0-90° Adjustable Bend



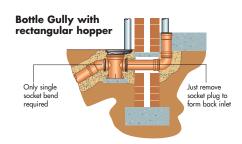


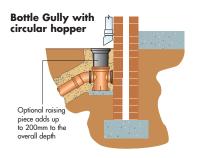
## **BACK INLET BOTTLE GULLY (BIG)**

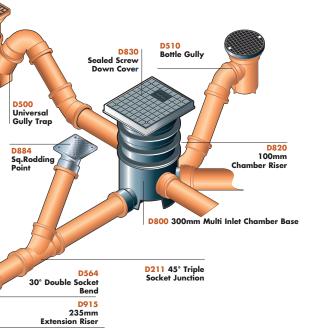
- Screw down, hinged rectangular heavy duty hopper.
- Heavy duty circular hopper available (D540).
- Both hoppers allow for height adjustment of 32mm.
- Sealed dip tube easily removed for rodding purposes.
- Gully riser allows an increase of invert depth up to 200mm (D505). Maximum of one riser only.

Back inlet socket plug easily removed.









D105 **Double Socket** 

Coupling

The drawings are for illustration purposes only. For detailed installation advice

please contact your local stockist.



#### **INSPECTION CHAMBERS (POLYPROPYLENE)**

**FloPlast** 300mm Mini Access Chamber and 450mm Large Inspection Chamber offer an alternative to traditional manholes and may be used in depths of up to 600mm for the MAC, 1200mm and 3000mm for the Large Inspection Chamber.

#### 300mm Mini Access Chamber (MAC)

**FloPlast** innovative design for the MAC, brings unrivalled flexibility to the underground drainage market.

The MAC has flexible connections for all inlets allowing a 10° movement in

any direction.

This is of great assistance to the installer where the connecting pipes are not perfectly aligned with the MAC inlets. In many instances it will eliminate the need to install an extra bend and provide a saving on the cost of the installation.

In addition, the variety of inlet combinations available on

the **FloPlast** Mini Access Chamber and the choice of two chamber risers, 100mm and 200mm, provide installers

with a significant advance in the ease of which they can plan and install their

drainage system. The MAC base is designed to facilitate the stacking of bases on top of one another to give a space saving storage solution for the merchant stockist.

In summary, the **FloPlast** Mini Access Chamber design and flexibility provides a practical, innovative and cost effective solution for the provision of access in a drainage system.

BS EN 13598 - 1: 2010 Plastic Inspection Chamber for drainage.

UK Patent No. GB2357127

#### 450mm Diameter Large Inspection Chamber (LIC)

**FloPlast** product innovation is again demonstrated with its 450mm Diameter Large Inspection Chamber.

To comply with the changes to Approved Document H of The Building Regulations 2000, significant research and development has gone into the design of this unique product. The chamber base incorporates five 110mm flexible inlets, which allow 10° of movement in any direction.



The plastic cover and frame can take loadings of up to a maximum of 35kN. Should the connection of D930/D931 cover and frame be required directly to the base D900/D910, then riser D915 must be used and cut to suit, by cutting just above the bottom most large flange/rib.

(Please ensure sealing rings are used in conjunction with each riser section).

FloPlast installation details are concise, however they are provided as general guidelines only.

**FloPlast** recommend that reference should be made to the appropriate Codes of Practice for Underground Drainage Systems.

European Standards BS EN 752: 1997 Drain and sewer systems outside buildings and BS EN 1610: 1998 Construction and testing of drains and sewers, have been introduced. These have replaced British Standards BS8301 (Code of Practice for Building Drainage).



## Useful Measurements for Installation of MAC & LIC

	Mac	inc' Lid
Base only	270	300
Base + one riser (100mm)	370	400
Base + one riser (200mm)	470	500
Base + (1 x 100 x 1 x 200) risers	570	600

LIC Invert Depth (mm)	270	505	740	975	1210	1445	1680	1915	2150	2385	2620	2855	3090
Number of Risers Required	Base only	1	2	3	4	5	6	7	8	9	10	11	12
Cover required	45 m		D930 openin m of 1	) ig up ti 200m	o a m			350m maxii	(D9 m ope num c	31) ning u if 300	p to a Omm		

## **160MM PIPE & FITTINGS, PVC-U** BS EN 1401-1:2009, BS EN 124:1994, BS 7158:2001







6D190 6D210 6D191 6D211

6D198

6D218

6D900

D915

D935

D930

D931

D923

SG800

800gm Lubricant gel

Product  6m Pipe-plain ended Bale Quantity - 33  6D 143 6m Bale Quantity - 33  6D 145 6m Bale Quantity - 33  6D 146  Pipe coupling Double Socket  Pipe coupling Double Socket  87½° Bend Socket/Spigotl  45° Bend Socket/Spigotl  150 Rend Socket/Spigotl  150 Bend Socket/Spigotl	
Bale Quantity - 33    S7½° Junction   Double Socket	
Single Socket   Spigot   Socket   Soc	
Pipe coupling Double Socket  Single Socket Bends:  87½° Bend (Socket/Spigot) 45° Bend (Socket/Spigot) 45° Bend (Socket/Spigot) 45° Bend (Socket/Spigot) 45° Bend (Socket/Spigot) 6D163  Socket/Spigot) 160 x 110mm 45° Junction (Double Socket) 160 x 110mm 45° Junction (Double Socket) 160 x 110mm 45° Junction (Double Socket) 160 m Large Inspection Chamber - 450m (LIC) 15° Bend (Socket/Spigot) 160mm x 160mm 90° Chamber Base with two 45° 110mm 150 mm 90° Chamber Base with two 45° 110mm 150 mm 1	
Single Socket Bends:	
Socket/Spigot	
45° Bend (Socket/Spigot)  30° Bend (Socket/Spigot)  15° Bend (Socket/Spigot)  Double Socket Bends:  45° Bend (Socket/Spigot)  6D164  160mm Large Inspection Chamber - 450m (LIC)  160mm x 160mm 90° Chamber Base with two 45° 110mm Use a proprietary adhesive s	
[LIC]  15° Bend (Socket/Spigot)  Double Socket Bends:  (LIC)  160mm x 160mm 90° Chamber Base with two 45° 110mm Use a proprietary adhesive s	
[Socket/Spigot]  Double Socket Bends:  160mm x 160mm 90° Chamber Base with two 45° 110mm Use a proprietary adhesive s	0mm Diameter
Double Socket Bends: with two 45° 110mm Use a proprietary adhesive s	
87½° Bend 6D561 MS Polymer to seal first riser	ve such as Siroflex
45° Bend 6D563 235mm Extension ris (Can be cut to size)	riser
15° Bend  6D567  Riser sealing ring (Use with each riser)	
160x110mm Level Invert (Socketed/Spigot)  D99  450mm Plastic cover	ver & frame
Flexi-adaptor ( 6 Cast Iron/160mm 6D102 450mm Plastic cover with 350mm restricted	
Clay-adaptor A= 160mm-180mm B= 180m-200mm	PART SNOUTHER
Cast Iron cover & place (35kN)	plastic frame
To conform with new document H Building Regulations H2 D931 as required).	H2000, use D930 c



#### INSTALLATION GUIDE

#### Trench Detail and Backfill Material

The trench should be constructed 300mm wider than the outside diameter of the pipe to be installed. Where the "as dug" material is suitable, the bottom of the trenches may be trimmed to form a pipe bed. The material can also be used as a sidefill and backfill. Imported granular backfill materials such as pea shingle, used in accordance with the recommendations of BS5955 Part 6: 1980 Appendix A, having a nominal particle size not exceeding 10mm, should be used as required up to and over the crown of the pipe. When this has been achieved the "as dug" material can be replaced into the trench. Once 300mm of material has been replaced, mechanical compaction can commence.

#### Testing

Testing of all drainage installations should be carried out in accordance with the requirements of the appropriate approving authority, using either air or water testing. References should be made to current editions of Building Regulations (Approved Document 'H') BS EN 752:1997 and BS EN 1610:1998. Where drainage appears inside buildings BS EN 12056 should also be consulted.

#### **Jointing**

#### **Pipe End Preparation**

When cutting pipes ensure that all ends are chamfered and are free from swarf, grit and dirt.

#### **Ring Seal Joints**

The **FloPlast** Ring Seal Joint acts as both a seal and expansion joint. The following sequence should be adhered to:

- Check that all ring seal sockets are properly located in their recessed position.
- Ensure spigots and ring seal sockets are dry, clean and free from grit and dirt.
- Lubricate all ring seal fittings. This will allow for a fast and efficient connection.
- Ensure all pipes and fittings are in the correct position.
- Insert pipe fully into the socket, then withdraw pipe by a minimum of 12mm. This will allow for expansion.

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#### **Adaptors**

External rainwater downpipes can be connected directly to a surface water drain or, depending on the design, via a gully trap to the underground drainage system.

The diameter of FloPlast's 110mm PVC-U above and below ground drainage systems are the same and therefore a direct connection may be achieved without the use of an adaptor. Where rainwater pipes connect directly to a drain, a suitable reducer will be required as follows:

- SP96 110mm x 68mm Rainwater Adaptor for round downpipe.
   RDS2 should be used with SP96 for connection to 65mm square downpipe.
- D96 Universal Rainwater Adaptor for square and round downpipe.
- D95 Universal Waste Adaptor for 32mm, 40mm and 50mm waste pipe connection to 110mm Soil/Drainage.

Connection to other materials such as Cast Iron, Supersleve and Hepsleve, is achieved by the use of a range of rigid and flexible couplings and adaptors.

#### **Access and Rodding Points**

Access is very important on all installations for testing, inspection, and removal of any blockage or debris. Rodding in both directions can be achieved by using a Mini Access Chamber (MAC) or 450mm Large Inspection Chamber (LIC) in conjunction with access fittings.

Rodding points are more commonly used in storm water drainage systems where the rodding point is located at the head of the drain run connection to a chamber, and being no further than 22 metres away from the chamber. The rodding point should be enclosed in a concrete surround to provide support and to ensure that it does not become mislaid at ground level.



# Inspection Chambers Mini Access Chamber (MAC)

A mini access chamber has a relatively narrow riser shaft, and is used for inspecting, clearing, and rodding a drain line.

The narrowness of the riser shaft permits limited clearing and rodding to a maximum depth to invert of 600mm.

Any unused side connections should be sealed with a plain socket plug.

Should bends be required to change direction, these should be sited at the point of entry to the chamber.

Side branches of the chamber should not be used to change direction of the main flow, as a self-cleansing flow through the chamber cannot be guaranteed.

Intermediate depths can be achieved by cutting a riser at the indicated points.

The frame and cover should also be adjusted to suit the level of the adjacent ground and surrounded in a minimum of 50mm of concrete.





Large Inspection Chamber (LIC) incorporating Non Man Entry Restricted Access

Cover & Frame

The large diameter of the riser shafts of inspection chambers enables them to be installed to a maximum depth to invert of 1200mm when used in conjunction with a 450mm opening cover and frame. The chamber complies with Approved Document H of the Building Regulations 2000 by using the 350mm reduced opening cover and frame for installations over 1200mm up to a maximum of 3000mm invert depth.

The chamber is installed on a suitable bed dependent on the quality of the trench and backfill materials.

Backfilling is continued up to approximately 50mm of the finished ground level.

The frame and cover are placed on a bed of concrete around the top of the uppermost shaft, and adjusted to the finished level.

The frame is securely fixed through the wall of the chamber at the set location points using self-tapping screws. The cover is then secured to the frame with the captive screws. It is impossible for the cover to be removed without undoing the screws.

Intermediate depths can be achieved by cutting the riser at 60mm intervals; the frame also has 55mm of telescopic adjustment.

Any unused side connections should be sealed with a plain socket plug.

Should bends be required to change direction, these should be sited at the point of entry to the chamber.

Side branches of the chamber should not be used to change the direction of the main flow, as a self-cleansing flow through the chamber cannot be guaranteed.

Should the connection of D930/D931 cover and frame be required directly to the base D900/D910, then riser D915 must be used and cut to suit, by cutting just above the bottom most large flange/rib.



Scan with your smart phone to watch our Underground installation video



#### Ground Guard GROUND REINFORCEMENT SYSTEM

**GroundGuard** is a linked paving system, manufactured from Polyethylene, that provides a durable safe and eco-friendly surface for grass reinforcement, ground stabilisation and gravel retention for pedestrian and vehicle access areas.

#### GroundGuard is suitable for:

- Additional/overflow grass car parks.
- Walkways and disabled access routes.
- Golf buggy paths.
- Driveways and residential lawn parking.



### LAND DRAINAGE CORRUGATED COLED LAND DRAINAGE PIPE MANUFACTURED IN PVCu

Land Drainage is used to remove excess water from fields and gardens, in fact any area where excessive water is a problem.

The perforations allow seeping water to ingress the pipe, capillary action then maintains the water within the pipe allowing it to flow to its destination i.e. Stormwater Attenuation Tanks, also known as Modular Plastic Geo Cellular Units (egg crates) or a watercourse (stream, lake etc).

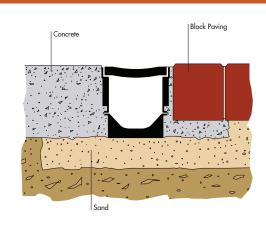
#### **System Features**

- Perforated and coiled land drainage pipe is manufactured in HDPE.
- Normally used in agriculture and in building construction sites.
- Particularly beneficial in areas with heavy ground conditions i.e. clay.
- Relieves hydrostatic pressure.

	Product	Code
Land Drainage - 2	5m Coil NOM SIZE O.D	
	80mm x 25m	L8025
	100mm x 25m	L10025
1	80mm Coupling	LC80
1	100mm Coupling	LC100
	Multi-junction branch 80/100mm	LJ100
00		

#### FloDrain DOMESTIC CHANNEL DRAINAGE

- Quality domestic surface Channel Drainage 110mm x 100mm (Internal channel dimensions).
- Anti-slip heel guard grating.
- Garage Pack available
   (3 x 1m length, end cap and outlet).
- 5 tonne spread load. 1.5 tonne point load.
- 4 outlets per length for maximum flexibility.
- Quad section for corners and junctions.
- Concave grid for maximum flow.



#### FloDrain DOMESTIC CHANNEL DRAINAGE



### Domestic Channel Drainage Easy To Install With Concrete or Paving

- Dig trench for FloDrain, allowing for 50mm deep compacted sand base and wide enough for a minimum of 100mm backfill of concrete on each side.
- Fix a string line to finishing height of grate 2mm below final surface level.
- 3. Allow a fall of approx. 5mm for every 1m length (1:200).
- Start installation at lowest point of the run to accommodate any cut lengths which should be installed at the point furthest from the outlet.
- FloDrain joints and end caps to be sealed with silicone sealant.
- 6. Use an end cap at highest point of FloDrain.
- Connect the lowest end of FloDrain to 110mm PVC-U BS EN1401 drainage pipe using either an end outlet or the preformed channel bottom outlet to allow water to drain away. Contact FloPlast for additional coupling details for other connections e.g. clay pipes etc.
- FloDrain can be cut to length with a hacksaw. Install with grate fitted.
- 9. Protect grate with tape before concrete is poured.
- 10. Finish concrete 2mm above level of grate.
- 11. Allow 72 hours to cure before vehicle use or removing grates.
- 12. To remove grate, simply run a screwdriver along the edge of the grate to dislodge.
- 13. If installing block paving or paving slabs, haunch around channel with concrete to a height which allows the depth of the block or slab to finish 2mm above the level of grate.
- All FloDrain installations must be set in concrete.



# **FloPlast**®

## building the future

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#### Other systems available:

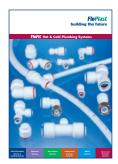




























KM 572704



































