**HDPE flexible slotted drainage pipe with smooth bore**

**Drainex** drainage pipe has an innovative double wall sandwich construction, with a corrugated outer wall and a smooth inner wall. This combines high ring stiffness with excellent flow characteristics. It is available in coils and 6m lengths. Rows of water in-take slots are symmetrically arranged around the apex of the pipe (240°) with a flow channel at the bottom (120°). The high infiltration area combined with the thin inner wall structure ensures optimum water intake. The slots are protected in the valleys of the corrugated structure which reduces the possibility of blocking. The smooth bore with an extremely low roughness coefficient results in greater flow rates, allowing the utilisation of smaller diameter pipes.

**Compressive strength**
Drainex, correctly bedded and side filled with filter material (together with the all important surrounding soil), forms a complete pipe-soil system. This can withstand loads in excess of 150 kN/m which can result from soil pressure and superimposed loads.

**Impact resistance**
As Drainex is manufactured from HDPE (high density polyethylene) it is extremely tough and durable. This facilitates handling and minimises breakages. It has excellent impact strength far exceeding the requirements of DIN 4262 Part 1 “uPVC and HDPE subsoil and multi-purpose drain pipes for use in road construction and civil engineering”.

**UV resistance**
Drainex is UV stabilised and can be stored outdoors for one year.

**Marking**
The apex of Drainex is marked with an indelible yellow line to facilitate the correct orientation during installation.

**Chemical resistance**
Drainex is manufactured from HDPE which is one of the most chemically resistant polymers. It is unaffected by acids or alkalis in the most aggressive soils and effluents. A detailed chemical resistance specification is available on request.
Jointing and accessories

Drainex is joined by means of push fit couplings and a standard range of pipe fittings is available. Unslotted drainage pipes are also available to convey water collected in the drainage system to a discharge point. To ensure that this part of the system is watertight, profiled sealing rings are available. They should be positioned in the 3rd valley from the end of the pipe for sizes DN160 and DN110, and the 4th valley for size DN75. Joints with sealing rings are watertight to a 0.2 bar pressure. Pipe fittings for use with sealing rings are also available.

Agriculture

In agricultural applications it is common practice to use drainage pipes with a single filter consisting of sand or stone. Fines will migrate through the filter into the pipe. These fines are deposited and build up over time in pipes with rough or corrugated inner bores. This necessitates periodic flushing to remove the deposits and maintain the integrity of the drainage system. However, if Drainex, with its ultra smooth bore, is installed at the correct gradient, the system will be self-cleansing.

Structural

In structural applications, such as underfloor drainage of reservoirs, Drainex is used with a filter of no fines concrete. The strength of Drainex is a distinct advantage as it is not easily damaged during concrete pouring operations.

Civil Engineering

A double filter consisting of stone and geotextile is most commonly used in civil engineering applications. For a well designed filter to function a reverse filter must form between the soil and the geotextile, allowing fines to pass into the drainage system. The use of properly installed smooth bore Drainex will ensure the efficient removal of these fines. Stability of the filter will occur when the movement of fines has ceased.

Technical data:

<table>
<thead>
<tr>
<th>Drainex nominal pipe size</th>
<th>DN160</th>
<th>DN110</th>
<th>DN75</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outside diameter (mm)</td>
<td>160</td>
<td>110</td>
<td>75</td>
</tr>
<tr>
<td>Inside diameter (mm)</td>
<td>137</td>
<td>95</td>
<td>63</td>
</tr>
<tr>
<td>Infiltration area (mm²/m)</td>
<td>&gt;5 000</td>
<td>&gt;5 000</td>
<td>&gt;2 500</td>
</tr>
<tr>
<td>Nominal slot width (mm)</td>
<td>1,8</td>
<td>1,3</td>
<td>1,3</td>
</tr>
<tr>
<td>Standard pipe length (m)</td>
<td>&gt;450</td>
<td>&gt;450</td>
<td>&gt;450</td>
</tr>
<tr>
<td>Ring stiffness (kPa)</td>
<td>&gt;450</td>
<td>&gt;450</td>
<td>&gt;450</td>
</tr>
</tbody>
</table>

*Higher infiltration areas are available on request

#Coils available on request subject to minimum order quantities

Specifications subject to change without notice

All specifications are subject to manufacturing tolerances

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