Sustainable Bituminous Surfacing Solution
Duraflow™ porous asphalt has been designed by Roadstone Wood for use as a surfacing solution for porous pavements and Sustainable Urban Drainage System (SUDS) applications. Duraflow™ has been designed to soak up surface water which then percolates into a stone subbase layer, Permeabase™. Water is discharged at a controlled rate into a water attenuation drainage system or infiltrates through other layers into the sub soil. Duraflow™ surface course has been designed by Roadstone Wood using polymer modified bitumen and carefully selected high quality aggregates to maximise performance and durability. Roadstone Wood can also supply Duraflow™ open graded base and binder course materials for complete porous pavement designs. The significant storage capacity of Porous asphalt pavement systems provides a cost-effective drainage solution for capturing and controlling the release of surface water.

**Product Specification**

Duraflow™ porous asphalt is manufactured in accordance with the requirements of IS EN13108-7: Porous Asphalt and NSAI Standard Recommendation (SR) 28. This product is CE marked with conformity Assessment operated in accordance with IS EN 13108-20: Type Testing and IS EN13108-21: Factory Production Control.

**Drainage Capacity**

The drainage capacity of Duraflow™ porous asphalt can be measured using the hydraulic conductivity test which shows how fast water drains away from the surface. The hydraulic conductivity of Duraflow™ is 0.2s⁻¹, which is 60% higher than the minimum value specified by the NRA for Porous Asphalt (CI.938 of the NRA Specification for Road Works).

**Uses and Applications**

Duraflow™ can be used for a wide range of applications including:

- Road Surfacing
- Car Parks
- Sports Surfaces
Drainage System

When selecting the type of drainage system (infiltration or retention) at the design stage, it is important that the sub soil permeability and California Bearing Ratio (CBR) is considered. It is possible to have a combined drainage system for porous pavement systems. An appropriate Geotextile must also be selected for the elected system.

Mix Performance

Duraflow™ porous asphalt is engineered in Roadstone Wood’s R&D facility to provide a tough and durable surfacing solution.

Pavement Layers (min thickness)*

For car and light vehicle loadings:
- Duraflow™ surface course - 40mm
- Duraflow™ binder course - 80mm
- Permeabase™ choker course - 30mm
- Permeabase™ sub base - 220mm

*Subgrade CBR 5% min.
Duraflow™ - Sustainable Bituminous Surfacing Solution

Features and Benefits

- Sustainable environmentally friendly solution for rainwater management
- A reduction in the need for permanent drainage, surface water sewers and balancing ponds
- Quick to install
- Facilitates re-use of rain water
- Drains the water quickly, eliminating standing water
- Reduced surface spray
- Less chance of ice forming
- Acts as a balancing pond to reduce the risk of flooding
- Filters pollutants from the water
- Easy maintenance using appropriate cleaning plant, without the need for any reconstruction or disturbance to the pavement
- Duraflow™ is 100% Recyclable
- Specially designed using polymer modified bitumen and high quality aggregates

Reducing our Carbon Footprint

Roadstone Wood continuously strives to achieve reductions in the carbon footprint of our product range through our certified management systems, ISO50001: 2011 (Energy Management System) and ISO14001: 2004 (Environmental Management System). Reductions in our Carbon Footprint have been achieved through new product development, process and energy efficiencies, recycling and reductions in waste.

Typical Results

<table>
<thead>
<tr>
<th>Feature</th>
<th>Typical Value</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permeability</td>
<td>In excess of 2,000 l/s/ha (720mm/hour)</td>
<td>Heaviest rainfall event recorded in Ireland is 269 l/s/ha (97mm/hour) Normal heavy rainfall in Ireland would be 55 l/s/ha (22mm/hour)</td>
</tr>
<tr>
<td>Relative Hydraulic Conductivity</td>
<td>0.2 s⁻¹</td>
<td>0.12 s⁻¹</td>
</tr>
<tr>
<td>Moisture Sensitivity</td>
<td>95%</td>
<td>&gt;75%</td>
</tr>
<tr>
<td>Cantabro (Durability)</td>
<td>5%</td>
<td>&lt;25%</td>
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</tbody>
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For further information contact:

ROADSTONE WOOD
Contracts Division
Tel: +353 (0)1 4041200
Fax: +353 (0)1 4041321
Email: info@roadstonewood.ie
www.roadstonewood.ie

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