







Kilsaran Clima-Phalt



WHAT IS IT?

Clima-Phalt is a 'source control' method of managing surface water whereby water is dealt with on-site without piping off to storage tanks or surface water treatment systems.

Kilsaran Clima-Phalt is constructed using our specially designed Porous Asphalt. It is designed to have a very high content of interconnected voids allowing passage of water and air in order to provide the compacted mixture with good drainage and noise reducing characteristics. This allows water to rapidly drain from the surface down through the pavement.

Typical Uses

The rapid development of green-field sites and the associated creation of impermeable areas such as carparks, footpaths and roofs mean that, at project conception stage, there could be large volumes of surface water to be dealt with.

Traditionally this has been done by piping the surface water into storage tanks or discharging it into nearby streams or surface water drainage. This method of drainage is not currently favoured by planners and designers, as it simply moves the surface water downstream where it still has to be dealt with. This is especially important where large volumes of water need to be handled during heavy rainfall events. Piping large volumes of water into streams and rivers increases the risk of flooding and also allows for the potential pollution of local water courses and drinking water supplies.





Clima-Phalt

Specification & Characteristics

Kilsaran Clima-phalt is a CE Marked product under the Construction Products Regulations (CPR) and is produced at all 4 of our I.S. EN 13108 Certified production facilities. Clima-Phalt Porous Asphalt can be produced as a 10mm, 14mm or 20mm mixture using polymer modified bitumen or standard binders and fibres which can be laid in one or more layers. Typical layer thicknesses are:

- 30mm 50mm for surface course
- 50mm 80mm for binder course

Clima-Phalt is typically laid on top of a permeable "Choker Course" typically 25mm/30mm deep. The choker course should be a well graded material that inter-locks the surface of the under lying permeable base and provides a working surface for construction of the bituminous layers. The permeable base layer is typically 200mm/250mm deep.

All materials used as permeable aggregates comply with the requirements of I.S. EN 13242 and are available at a number of Kilsaran locations.

A suitable geotextile membrane must be used to separate the permeable aggregate base from the subgrade beneath.

Sustainable Urban Design (SUDs)

Planners are encouraging the use of Sustainable Urban Drainage Systems (SUDS) in all new developments. In particular, the use of appropriate source control techniques is important as this allows for the onsite containment and subsequent distribution of the surface water collected, as opposed to traditionally draining it off-site.

SUDS, as a sustainable development approach to Surface Water Design Techniques, aims to attain the following:

Manage water run-off from developed areas, similar to quantities prior to development (Source Control)





- Reduce and avoid incidences of downstream flooding
- Protect and enhance water quality of the run-off
- Improve and enhance the amenity where possible

> Advantages over Traditional Methods

Clima-Phalt offers a number of advantages over traditional SUDS techniques, such as storm water attenuation tanks. The permeable stone based sub-base, which needs to be installed for any type of surfacing material, is adapted to an open graded material in the porous systems. This allows the water collected from the site to be stored in the pavement and either infiltrated back into the ground or discharged at a controlled rate into the surface water drainage system.

- Separate attenuation tank systems are not required
- No need for gullies or channels or conventional drainage
- Recharges ground water
- Roofs, roads and other non-permeable areas can be
 discharged into permeable paving (no gullies required)
- No ponding or surface water
- Collected water can potentially be re-used for non-potable purposes
- Improves water quality

Clima-Phalt can be sourced at any of our Asphalt production facilities located at:

Ballinascorney Co. Dublin Tel: 01 458 2237

Ballinclare Co. Wicklow Tel: 01 458 2237

Gallstown Dunleer Co. Louth Tel: 041 686 1515

Tullamore Co. Offaly Tel: 057 932 1727

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