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# Icopal Biodiverse Substrate

## Green Roof Systems

### Introduction

The Icopal Biodiverse Substrate is designed to support wild flower, sedum and grass species on Icopal Biodiverse green roof systems. The substrate is designed to be free-draining yet water retentive. Its low nutrient status makes it ideal to support the wild flower species sown / or planted into it.

### Description

The Icopal Biodiverse Substrate is a blend of recycled crushed brick, fine grade 10 mm topsoil (BS 3882) and 10 mm Composted Green Waste (certified PAS 100).

A specially blended mix of free draining organic material with clean, screened granular aggregates, recycled from certifiable waste products from the building industry, to provide a low nutrient water retentive growing medium. In compliance with soil association standards and certifications.

### Application

Icopal Biodiverse Substrate is for use in conjunction with the relevant specified components of the associated Icopal extensive roof system. It may be used on both flat roofs with minimum fall of 1:60, and when properly specified, low sloped roofs. For slopes greater than 10 degrees, advice relating to retaining the system should be sought from Icopal's Technical Department.

The roof deck should have sufficient drainage points to quickly drain away water to prevent ponding and excessive substrate saturation.



### Properties

Composition	Recycled crushed brick, fine grade 10mm topsoil (BS 3882) and 10mm Composted Green Waste (certified PAS 100)
Weight/Unit Volume (dry)	1000 kg·m <sup>-3</sup>
Weight/Unit Vol. (saturated)	1250 kg·m <sup>-3</sup>
Compaction	20 %
Availability	1.25m <sup>3</sup> IBC bulk bag; 25 kg sack

### Preparation

Icopal Biodiverse Substrate should be installed onto an appropriate Icopal Drainage Board and filter layer to ensure the substrate remains free-draining to avoid saturation of the substrate.

### Installation Details

The Icopal Biodiverse Substrate should be laid to typical settled depth of 100 mm. Contouring can be introduced to create a greater variation in flora and fauna, typically undulating between 75 mm and 125 mm; or to project requirements. When specifying a pre-grown blanket, such as Icopal Wildflower Mat, the substrate should be laid level and firm to ensure a good contact between the substrate and the plant roots. This will ensure a more successful establishment phase.

The Icopal Biodiverse Substrate is poured onto the filter fleece/drainage layer and raked, allowing for settlement, to the depths required. The Icopal Biodiverse Substrate should not be installed when the substrate is saturated.

The Icopal Edge Restraint detail can be used to retain the Icopal Biodiverse System; including the growing substrate.

It is recommended that gravel borders are used to keep the planting away from any waterproofed upstands, and around roof equipment or structural openings/penetrations such as rooflights etc. The width of the border should be a minimum 300 mm, in accordance with GRO recommendations. The use of borders can also provide roof maintenance access, as extensive green roofs are not intended to support foot traffic.

Biodiverse seed mixes may be sown over the top of the installed substrate. Plug plants or pre-grown planting mats may also be installed.

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### Typical Specification

The Icopal Biodiverse Substrate to be laid to a depth of 100 mm, or undulating depth of between 75-125 mm, and should be installed above the relevant Icopal Drainage Board and filter layer. Icopal Biodiverse Substrate should be laid in accordance with Icopal's instructions, and used with other relevant specified Icopal components.

### NBS Specification

Icopal Biodiverse Substrate is specified using the following:

**Clause:** Q37/390

**Product:** Icopal Biodiverse Substrate.

**Supplier:** Icopal Ltd. Barton Dock Road, Stretford, Manchester, M32 0YL. Tel: 0161 865 4444.



### Delivery

The Icopal Biodiverse Substrate is delivered in 1.25 cubic metre IBC bulk bags. The bags are generally lifted onto the roof by crane and the substrate poured onto the roof, where it is then raked level to the required depth. The substrate can also be delivered in bulk tippers or 25 litre bags as logistics demand and allow.



### Health and Safety

Health and safety data sheets are available for all materials. Please contact Icopal's Technical Services Department for further information.

### Technical Services

Specialist advice and design guidance on all matters relating to Icopal Biodiverse Substrate is freely available from our Technical Department at the address below.

### Availability

Item Code	Description	Size
3101079	Icopal Biodiverse Substrate	1.25 m <sup>3</sup> (IBC)
3101080	Icopal Biodiverse Substrate	25 kg (bag)

NOTE: This information is given in good faith being based on the latest knowledge known to Icopal Limited. Whilst every effort has been made to ensure the contents of the publication are current while going to press, customers are advised that products, techniques and Codes of Practice are under constant review and liable to change without notice. Up to date information is available from our Technical Services Department on request.

Responsibility cannot be accepted for the application of products, and no claims can be considered, where the manufacturer's instructions have not been followed. The user should not assume, based on information provided in this sheet, that the product is suitable for any abnormal use.

All products are sold subject to our standard conditions of sale, available on request.