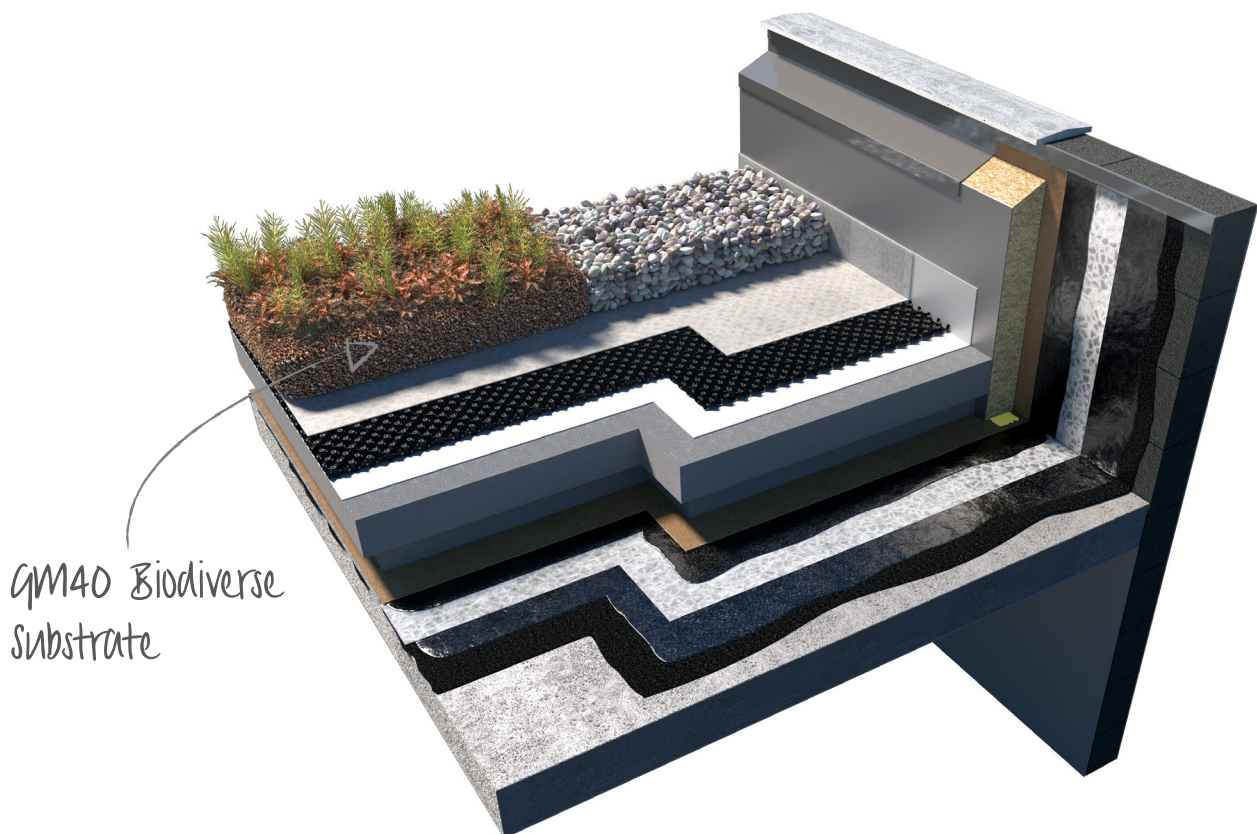


# GM40 Biodiverse Substrate

## Product Data Sheet



A provides a suitable growing medium to create a habitat in synchronisation with the surrounding local area, offering ideal conditions for invertebrates, animal species, colonisation by airborne plants and/or the majority of species used in biodiverse green roofing applications including 'brown' roofs.

# GM40

## Biodiverse Substrate

### General Information

**Radmat GM40 Biodiverse Substrate** provides a suitable growing medium to create a habitat in synchronisation with the surrounding local area, offering ideal conditions for invertebrates, animal species, colonisation by airborne plants and/or the majority of species used in biodiverse green roofing applications including 'brown' roofs. Consisting of recycled 14-5mm crushed brick, 4-10mm lightweight clay aggregate fine grade pine bark and composted recycled material (certified to PAS 100) all the materials used within its manufacture are responsibly sourced recycled materials of origin within the United Kingdom. 100% recycled material free from phytotoxic contaminants, all components are sourced with a strict identifiable provenance within a fifty mile radius of the manufacturing site, ensuring no contamination from invasive plant species such as Japanese Knotweed or Himalayan Balsam.

Compliant with GRO substrate guidelines.

Radmat GM20 Extensive Substrate is STRI Certified as containing only 4.4% organic matter.

### Application areas

Mixed pre-grown wildflower and sedum plugs or pre-grown wildflower and sedum blanket. Install GM40 Biodiverse Substrate medium on either Radmat D25 or D40 drainage/reservoir board covered with G11 filter fleece in accordance with the Radmat specification.

### Installation instructions

Apply to a depth as specified according to plant type allowing 10% post installation settlement. Indicative substrate depths are given in the table below, however the specified depth will vary based on a variety of factors including design load, building location, building height, plant species etc. It is therefore important to consult the project specification.

PLANTING METHOD	ROOF TYPE	POST SETTLEMENT SUBSTRATE DEPTH
Biodiverse green roofs	Inverted Roof	80mm to 150mm
Biodiverse 'brown' roofs	Inverted Roof	80mm to 150mm
Biodiverse green roofs	Warm Roof	80mm to 150mm
Biodiverse 'brown' roofs	Warm Roof	80mm to 150mm

### Fire Performance

Approved Document B Fire Safety points to the DCLG document Fire Performance of Green Roofs and Walls for best practice guidance in achieving Regulation 7(2) fire compliance with a green roof. DCLG Fire Performance of Green Roofs and Walls states that the compliance requirements for achieving Broof(t4) are a growing medium layer of a minimum 80mm and an organic content of not more than 50% (<https://www.gov.uk/government/publications/fire-performance-of-green-roofs-and-walls>). In addition, The Green Roof Organisation (GRO) Code of Best Practice, also recommends fire breaks consisting of 50mm deep 20/40mm rounded ballast are used at perimeters and penetrations. Gravel fire/vegetation breaks should be 500mm wide where they abut habitable space but can be reduced to 300mm in some circumstances. Key to ensuring ongoing fire performance of a green roof, and the plant performance, is maintenance as some plants will die back, others will shed leaves naturally during their lifecycle and invasive species will try to take hold. These factors all create additional organic matter that could pose a fire spread risk on the roof therefore unwanted organic matter should be removed as part of the maintenance program.

# GM40

## Biodiverse Substrate

### TECHNICAL FEATURES

Essential Characteristics	Composition	Performance	Unit
Bulk Density	Dry Weight by max water capacity	850 - 900 1125	kg/m <sup>3</sup> kg/m <sup>3</sup>
Grain size	Recycled brick Lightweight clay aggregate	14-5 4-10	mm mm
Ph/Salinity	Ph value	7.8	g/l
Air Filled Porosity		19.7	%
Total Porosity		60.3	%
Water Holding capacity (at 0.33 Bar)		45	%
Total Nitrogen		0.2690	mg/g
Extractable Phosphorus		0.003795	mg/g



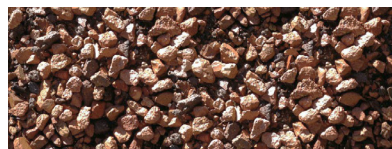
### Delivery conditions

#### Delivery Form

1.25m<sup>3</sup> Bulk Bags  
25 litre Sacks.

#### Storage and transport

Delivered on a pallet.  
Store flat.



This information given in good faith and is based on the latest knowledge available to Radmat Building products Ltd. Whilst every effort has been made to ensure that 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.

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