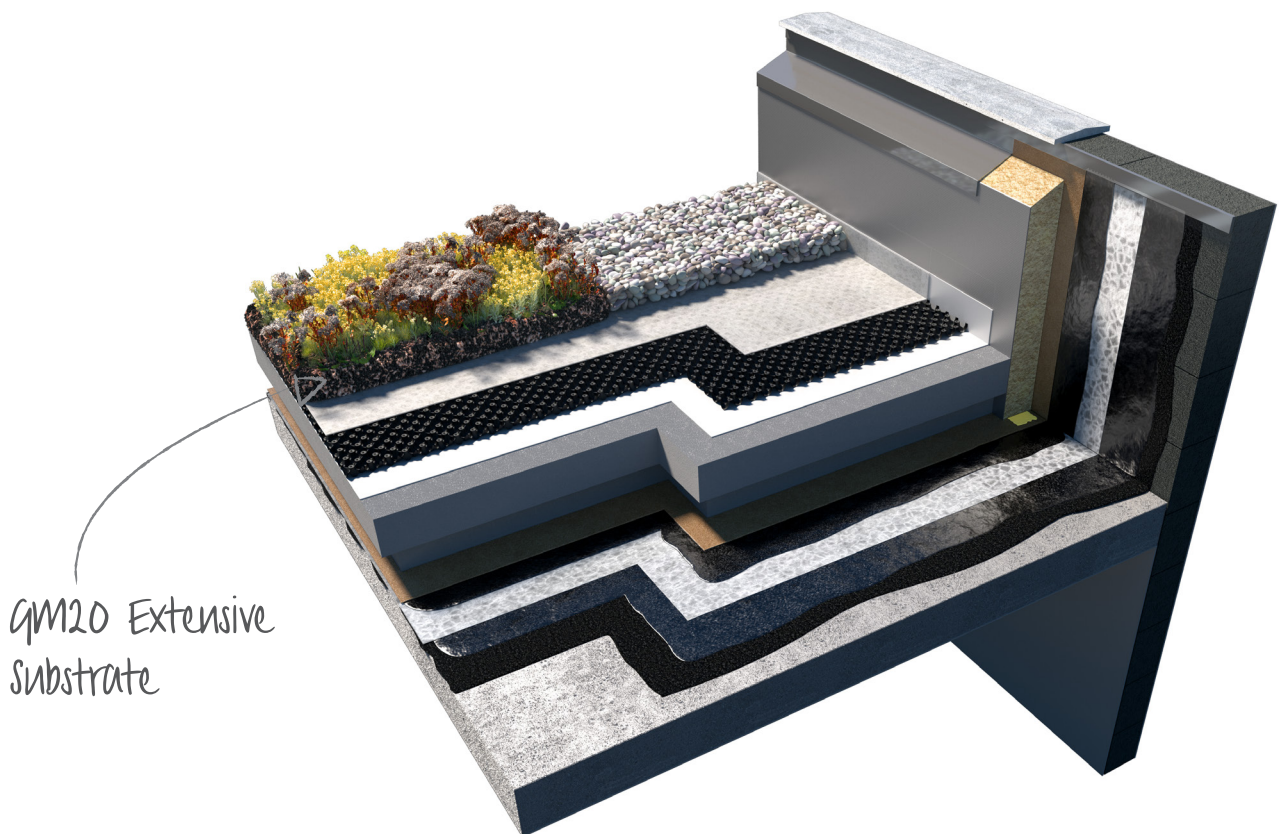


GM20 Extensive Substrate

Product Data Sheet



An extensive substrate providing a suitable growing medium for a self-sustaining plant community consisting of pre-grown sedum plug plants or pre-grown sedum blankets.

GM20

Extensive Substrate

General Information

Radmat GM20 Extensive Substrate provides a suitable growing medium for a self-sustaining plant community consisting of pre-grown sedum plug plants or pre-grown sedum blankets (see separate Product Data Sheets for species options). Consisting of a blend of water retaining aggregates, crushed brick and organic material, all composted material is from sustainable sources and the crushed brick element is a by-product or a second from the brick manufacturing industry and contains no demolition waste. Compliant with GRO substrate guidelines.

Radmat GM20 Extensive Substrate is STRI Certified as containing only 2.4% organic matter.

Application areas

Sedum based green roofs using pre-grown sedum plugs or pre-grown sedum blanket. Install GM20 Extensive Substrate 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
Pre-grown sedum plugs	Inverted Roof	80mm
Pre-grown sedum blanket	Inverted Roof	70mm
Pre-grown sedum plugs	Warm Roof	80mm
Pre-grown sedum blanket	Warm Roof	65mm*

* 15mm of substrate is provided by the pre-grown sedum blanket

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 Broo(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 poses a fire spread risk on the roof therefore unwanted organic matter should be removed as part of the maintenance program.

Delivery conditions

Delivery Form 1.25m³ Bulk Bags - 25 litre Sacks.

Storage and transport Delivered on a pallet.
Store flat.



GM20

Extensive Substrate

TECHNICAL FEATURES

Essential Characteristics	Composition	Performance	Unit
Bulk Density	Dry Weight by max water capacity	850 - 900 1060 - 1125	kg/m ³ kg/m ³
Coarse Fragments	> 2mm	70	Vol %
Grain size distribution	Particle size below 0.063mm Particle size > 4.0mm	2.1 92.8	Mass % Mass %
Weight per volume	Dry Weight by max water capacity	1000 1260	kg/m ³ kg/m ³
Water / Air conditions	Total pore volume Maximum water capacity Air content as max water capacity Hydraulic permeability	63.3 25.8 37.5 82	Vol % Vol % Vol % mm/min
Ph/Salinity	Ph value Salinity (water extract) Salinity (gypsum extract)	7.8 1.97 1.28	g/l g/l g/l
Organic matter	Organic matter (LOI)	38	g/l
Available nutrients	Nitrogen (N) Phosphorous (P) Potassium (K) Magnesium (Mg)	34 ≤ 50 ≤ 500 100	mg/l mg/l mg/l mg/l
Impurities	Tiles, glass, ceramics Metals, plastics Area sum for plastics	0.0 0.0 0.0	% weight % weight cm ² /l

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.

For further information on Radmat products and services please call **01858 410372**, email techenquiries@radmat.com or visit our website www.radmat.com

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