Growing Media

abg creative geosynthetic engineering

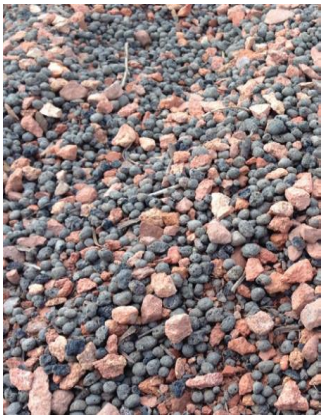
Data Sheet

A range of standard growing media for use in our green and blue roof systems. Each type of media is specifically developed for particular applications with its specification and performance characteristics tailored to suit the application requirements. There are three standard grades designed for use in intensive, extensive and biodiverse roof systems and for use over with both green and blue roof/podium deck structures. Each grade is designed to provide the optimum weight to minimise loads on the roof structure whilst providing the right nutrient environment to provide sustainable long-term plant
development with the roof or podium deck. All substrates are composed of composted material from sustainable sources, the crushed brick element is a by-product or a second from the brick manufacturing industry and therefore contains no demolition waste.

Extensive Growing Media

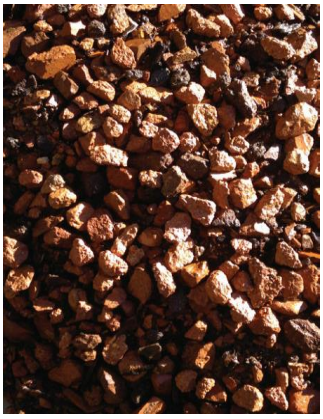
A blend of water retaining aggregates, crushed brick and organic material mixed to provide an extensive substrate to meet customer specifications. Extensive substrates are a versatile lightweight general purpose green roof growing media ideal for sedum matting systems and substrate based systems supporting hardier lower maintenance plants such as sedum, wild flowers and grasses. These mixes are used in a wide range of projects from large industrial or commercial buildings to smaller domestic properties. To sustain plant growth the minimum depth of media shall be 80mm.

Intensive Growing Media



A blend of water retaining aggregates, crushed brick and organic material designed for use on intensive green roofs. Intensive roofs or roof gardens are, as the name suggests, higher maintenance installations which give a greater flexibility with planting options due to the increased substrate depth. These projects offer almost unlimited possibilities with regards to design and very often resemble recreational areas or public gardens. Intensive substrate depths are usually in excess of 200mm and although the organic content is higher than an Extensive blend, making it less free flowing, silo tankers can be used, but with slightly increased pumping times.

Biodiverse Growing Media



A biodiverse substrate based environment is used to offer a habitat in synchronisation with the surrounding local area, offering ideal conditions for colonisation by neighbouring plant and animal species. Our biodiverse material is composed of recycled 14-5mm crushed brick, fine grade 10mm topsoil (certified to BS 3882) and 10mm composted recycled material (certified to PAS 100). Both the top soil and compost used meet strict soil association standards, and certification can be acquired on request. The recycled brick element is a by-product or second of the brick manufacturing process and therefore contains no demolition waste. Typically biodiverse finishes give the opportunity for an undulating landscaped profile varying from a minimum of 80mm to a maximum of 150mm depth of fill.

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Properties			
Product Code	Extensive	Intensive	Biodiverse
Loose Bulk Density	800-950 kg/m^3	800-950 kg/m^3	1000 kg/m^3
Saturated Bulk Density	1200 kg/m^3 (approx.)	1150 kg/m^3 (approx.)	1250 kg/m^3 (approx.)
pH Value	mm	35 x 47	

Available in

- 25kg Plastic sacks on pallets
- 1.25kg Bulk bags
- Loose bulk (delivered by tipper lorry)
- Loose bulk (delivered by silo tanker)

Chemical Analysis of Clay in Biodiverse Growing Media

A number of different clay types are used in the manufacturing process of bricks, these include Etruria Marls and Fireclay, this table contains typical analyses of the clays and marls used in production of crushed bricks:

Properties		
Chemical	**Eturia Marls (%)**	**Fireclay (%)**
SiO_2	59.51	70.20
SiO_2	1.12	1.07
AL_2O_3	19.01	18.30
Fe_2O_3	8.89	**1.42**
CaO	0.55	0.15
MgO	1.27	0.55
K_2O	1.63	1.67
SiO_2	0.23	0.10
Loss on ignition	7.05	5.95

Safety Data

In the condition sold, the product does not present a hazard to health. The products are not required to carry a hazard label under the chemicals (Hazard information and packaging for supply) Regulations 1994 (CHIP 2). When chipped, brick particles can cause damage to the eyes. Eye protection to B.S. EN 166 should be worn. When products are mechanically crushed, respirable dust will be produced which can contain silica (quartz). Engineering control measures should be employed to keep airborne dust to a minimum. If adequate local exhaust ventilation equipment is not provided, dust masks, or their equivalent, to type FFP2 should be worn.

Fire

There are no direct risks of fire or explosion from this product.

Off loading

Ensure that the lifting equipment is suitable and will carry the weight.

First aid

Where particles enter the eye, irrigate well with copious amounts of clean water. Seek medical attention, if necessary. Inhalation of dust, remove to fresh air and seek medical attention, if necessary.

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