

Benedict SmartMix™4 – Lightweight Planter Box Mix

Product Code

RN133 

Source

BENEDICT Moorebank

Disclaimer

The product data contained in this Product Data Sheet is applicable to Benedict Sand & Gravel materials and is current at the time of publication. Benedict Sand & Gravel reserves the right to vary product specifications without notice. The data contained within this sheet supersedes all previous information.

Description

Benedict **SmartMix™ 4** is a lightweight mix based on high quality mineral matter that creates a structural framework that is not subject to decomposition. This overcomes problems with slumping and the resulting loss in aeration and drainage efficiency. Whilst the mineral matrix is structurally sound it has good water holding capacity and a high cation exchange capacity.

Organic matter and high quality horticultural clays are blended into the mix to establish biological activity in the mix and boost water holding and cation exchange capacity.

Engineered for use in the **top 300mm of planter boxes**, **SmartMix™ 4** is based on the following principles:

- 1) Organic matter **should not be placed at depths below 300mm**. Below this level gas exchange with the air ceases and organic matter will begin producing phytotoxic gases as a result of anaerobic conditions.
- 2) Organic matter should be limited to a maximum of 15% by mass.
- 3) Organic matter is structurally unstable (i.e. it breaks down or decomposes) reducing dramatically in volume resulting in slumping at the surface. Organic matter should not be used as a structural component in growing media.
- 4) Planting areas deeper than 300mm require a two (2) part profile consisting of an organic growing media above 300mm and an inorganic mix below 300mm. Both mixes must be compatible to ensure that a perched watertable is not created.

The **SmartMix™** range is performance based. The minimum performance standard for **SmartMix™ 4** follows.

 denotes recycled product containing man-made objects such as but not limited to glass and plastic.

Benedict SmartMix™4 – Lightweight Planter Box Mix Contd.

Uses *SmartMix™4* is designed to provide ongoing optimum growing conditions for a broad range of plant species. It is specifically engineered for use in planter boxes on slab and containers where weight is a critical consideration.

- Benefits**
- > Contains high organic matter
 - > High porosity allows for easy root expansion, good aeration and good drainage
 - > Lightweight (low bulk density for suspended slab installation)
 - > Non-slumping (maintains soil volume)
 - > High cation exchange capacity to capture plant nutrients as they leach through the soil profile

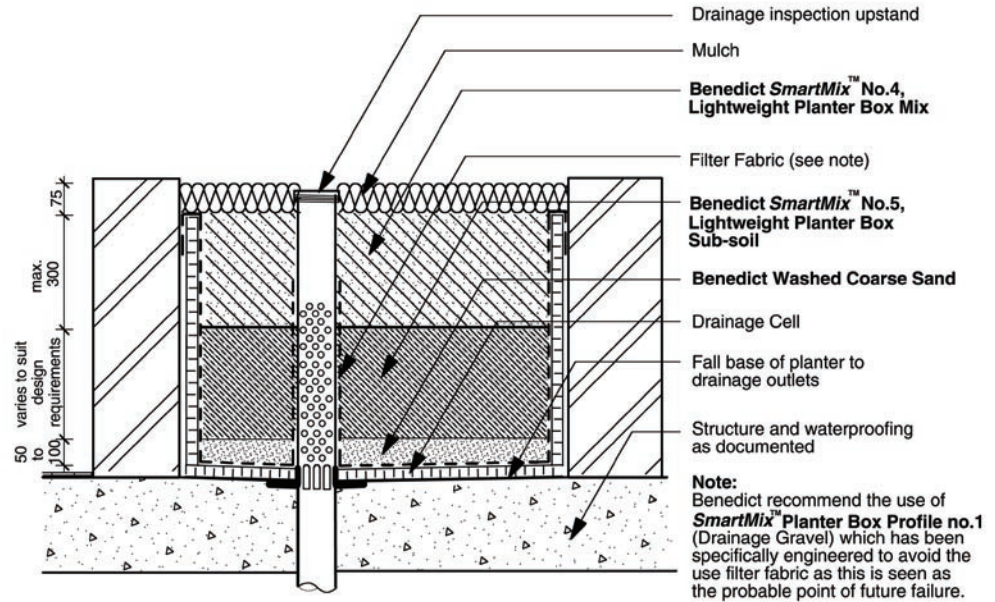


Figure 1. Benedict *SmartMix™* Planter Box Profile 2 (Drainage Cell)

Benedict SmartMix™4 – Lightweight Planter Box Mix Contd.

Characteristics

PHYSICAL PROPERTIES	TYPICAL RESULT	ACCEPTABLE RANGE (AS4419)
Particle Size		
<10mm	94.4%	
10-20mm	5.6%	<8
>20mm	0%	<2
Bulk Density	0.9kg/L	>0.7
Permeability	6.7cm/hr	2-100
Wettability	12.3mm/min	>5
Organic Matter	12.23%	3-15
Toxicity	77%	>70

**Texture
Moisture Content**

Decomposed matter in a matrix of loamy soil
 Not to exceed 10% by mass (AS1289)

Transport & Placement

Ensure that the material remains moist at all times during transport and placement.

Material may be discharged from the truck into stockpiles or directly into the location where it will be finally used.

If drying or particle segregation occurs the material must be remoistened and mixed prior to placement to achieve a homogenous blend of all components.

Each truckload of material is delivered with a delivery docket identifying the material type and the tonnage of material delivered.

The incorporation rate for the improvement of existing garden soil is recommended at between 10 – 50% by volume, as site conditions require. Mechanically incorporate organic planting mix into the top 150 – 200mm.

Please note: Benedict Sand & Gravel do not recommend the placement of materials (eg. garden mix) at depths greater than 300mm.

Benedict SmartMix™4 – Lightweight Planter Box Mix Contd.

Safety & Handling

Description

This product is partially composed of decomposed organics that contain a variety of living microorganisms which could include fungi, protozoa and a wide range of bacteria.

Risk

Inhalation of dust and/or liquid mists may irritate, inflame or sensitise the nose, throat and lungs resulting in illnesses ranging from hay fever or asthma to pneumonia-like illnesses. Direct contact with this material or this dust and/or liquid mists (bioaerosols) may cause skin irritation (dermatitis) and skin or eye infection or irritation. People particularly at risk are those suffering from asthma or allergies, and those with weak immune defence.

Safety

Avoid contact with eyes and skin. Avoid breathing dust/and or liquid mists (bioaerosols). Wear suitable protective clothing and standard duty gloves (AS 2162.2). If exposed to dust and/or liquid mists, wear dust resistant eye protection (AS/NZS 1336) and a particulate respirator (AS/NZS 1715 and 1716). Wash thoroughly immediately after handling. Wash work clothes regularly. Clean up by wet sweeping or vacuuming.

First Aid

Irrigate eyes with plenty of water for 10 minutes. Wash skin with soap and water. For inhalation, remove to fresh air. Seek medical attention for any persistent skin, eye or respiratory symptoms.

Note: Please refer to the appropriate Material Safety Data Sheet for more specific safety and handling information.

Alternative Products

Premium Organic Garden Mix, Native Garden Mix

Technical Enquiries

BENEDICT SAND & GRAVEL

ABN 99 073 763 292

ph: (02) 9986 3500

fax: (02) 9986 3555

email: sales@benedict.com.au

web: www.benedict.com.au

post: PO BOX 875 ST IVES NSW 2075