



ROOFTOP GARDEN DRAINAGE LAYER

NATURE OF INTERVENTION

Waterproofed flat rooftop surfaces are often covered to protect the waterproofing layer, improve its long-term durability and to provide for a more aesthetically pleasing finish. In recent years, such coverings have become an integral part of the architectural design of the structure by way of attractive paved areas and/or rooftop or podium gardens.

These new engineered covers often require additional layer works that, not only continue to offer protection and durability, but also address further requirements such as drainage and the provision of adequate growth mediums for the vegetation.

Traditionally these additional layers have been formed by aggregate and topsoil layers which are heavy, expensive and cumbersome to place/install on the structure.

Through the introduction of various Geosynthetics products, to replace these conventional construction materials, the durability, cost and performance of the layer works can be greatly improved lowering upfront costs and contributing to much improved structural efficiencies over extended design and operational lifespans.

Location:

Midrand, Gauteng, South Africa

Products:

- HDD 10 85 12F

Quantity:

1 800 sqm

Application:

Rooftop Garden Drainage Layer

Date:

March, 2024

SOLUTION

HDD 10 85 12F, TeMa's 10mm thick, HDPE cusped drainage medium with bonded nonwoven PP geotextile was placed over the entire footprint of the rooftop. This provided both a lightweight protection layer between the underlying bituminous waterproofing and overlying layer works and vegetation, whilst at the same time offering a reliable drainage layer to collect and remove excessive rainfall volumes.

The cusped sheets are easily overlapped, secured in place and adapted to existing exit mechanisms such as weepholes and full bores. The product is easy to handle, quick to install and extremely durable to the placing of overlying material.

The use of the TeMa Geo products, provided significant benefits over other conventional natural materials to the project in terms of cost, ease of installation and a reduction in construction time.



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