

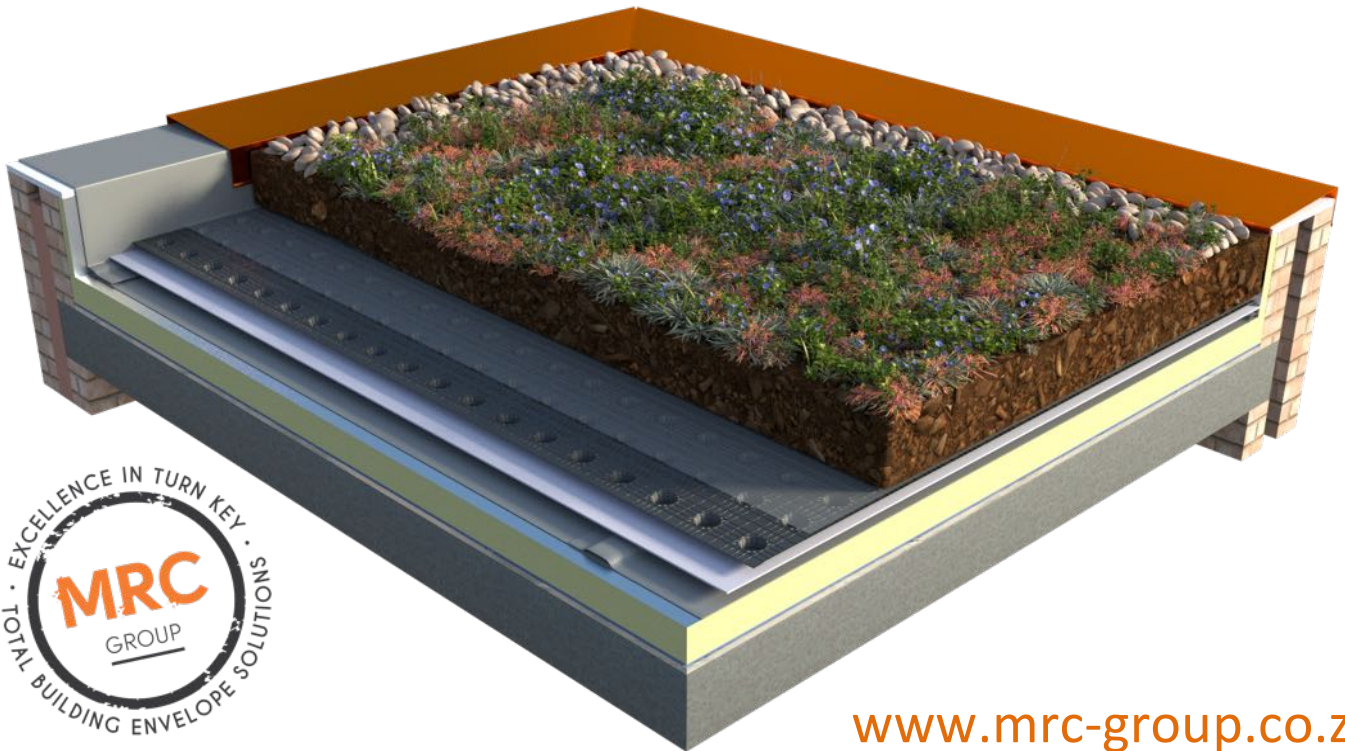
THE STRATUM RANGE

Excellence in Green
Roofing Systems

info@mrc-group.co.za
www.mrc-group.co.za



GREEN ROOFS ON METAL ROOF SYSTEMS – TECHNICAL DATASHEET



www.mrc-group.co.za

SYSTEM OVERVIEW:

MRC Group's Green Roofs on a Single-Ply Roof Membrane solution provides the opportunity to increase the thermal and acoustic performance of the roof system whilst providing a valuable method of managing rainwater run off.

MRC Group's PVC or Elva formulated Single-Ply Roof Membrane systems are an ideal substrate to support a green roofing system as all laps are hot air welded therefore there are no exposed fixings providing a perfect anti-root membrane.

The impact of the urban heat island can be dramatically reduced in cities with the installation of Green Roof Systems whilst also improving the life span of the installed roof system.

MRC Group's installed system is backed with the unrivalled single source 'Guardian' System Warranty which covers materials, installation & maintenance for the term of the green roof and metal roofing system.

KEY FEATURES:

- Dramatically improve the life expectancy of your roof system
- Filters pollutants from the air and reduces heat loss in winter
- Controls rainwater run off
- Relieves pressure off the underground rainwater pipes
- Available for new build & refurbishment schemes
- Option of increasing the R-Value performance up to 10 (m².K/W)
- Excellent sound reduction & anti-rain drumming performance
- Backed with the up to 20 year 'Guardian' System Warranty

JOHANNESBURG – DURBAN – CAPE TOWN

For project specific specifications, CAD Details, Samples or technical assistance please contact our technical department on +27 (0) 861 672 476 or refer to our Technical Brochure available on www.mrc-group.co.za

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TECHNICAL DATA FOR CORRECT CONSTRUCTION:

DESIGN OF THE GREEN ROOF SYSTEM

Succulents / hardy plants:	Various options as described below
Irrigation:	Irrigation system required
Growing Medium:	100mm Engineered Recycled Lightweight Root-Zone
Filter Mat:	Filter layer
Drainage Mat:	20mm drainage/reservoir
Saturated Weight:	86kg / m ² saturated weight of the Sedum Green Roof System

MRC'S SINGLE-PLY ROOF MEMBRANE SYSTEM AS AN ANTI-ROOF MEMBRANE

MRC Group's PVC or Elva single-ply roof membranes, supplied by Haogenplast, can be installed as follows:-

1. Fully adhered system
2. Full mechanical fixed
3. Perimeter mechanical fixed

With all the above fixing methods, the end & side laps are all hot air welded, providing a completely seamless monolithic finish with NO exposed fixings. All the laps are thereafter sealed with a liquid PVC which provides additional protection against root ingress.

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TECHNICAL DATA:

MATERIAL & THICKNESS

Specially formulated calendared soft PVC sheeting, laminated with a reinforcing polyester scrim – Colours generally white or grey but other colours are available depending on quantity required.

- Ogen Flex OR Elva Flex – 1.2 & 1.5mm. (Roll 20 x 1.5 / 2.4m)

Elva Flex is used in heavy industry areas, providing additional protection against chemicals, oils and exhaust gases from flues.

PROTECTIVE AND SEPERATION MATERIALS

A seperation layer should be used with bitumen or polystyrene.

- The seperation layer is either a non-woven polyester 200g / m² or glass fibre mat 120g / m².
- The protective layer is used where the substrate is rough or uneven is either a non-woven polyester 300g / m² or 500g / m².
- A vapour control layer should be incorporated between the insulation and the substrate. At all joints and edges the vapour barrier should be continued up and over the insulation and sealed accordingly.

LAPS AND WELDING

- Side overlap width is 100mm.
- Automatic or manual hot air minimum welding 30mm.
- Mechanical fixings accomodated within the lap.

THERMAL PERFORMANCE

- R-Value performance of up to 10 (m².K/W).

FIXING OF THE SYSTEM

- Fully adhered systems are more commonly used above concrete substrates. Fully adhered systems are reliant upon suitable weather conditions.

SYSTEM WARRANTY

Up to 20 year, single source Guardian™ System Warranty covers Materials, Workmanship & Maintenance.



Green Roof on a Single-Ply Roof Membrane System



Insulated Single-Ply System mechanically fixed



Hot air welding of the Single-Ply Roof Membrane

ACCREDITATIONS



JOHANNESBURG – DURBAN – CAPE TOWN

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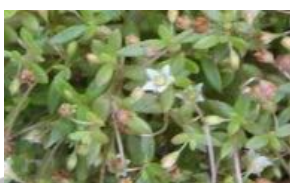

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BOTANNICAL NAME	HEIGHT	BLOOM TIMES		
Crassula spathulata	100	Spring / Summer		
Crassula Pellucida subsp. brachypetala	100 – 150	Spring / Summer		
Crassula Pellucida subsp. marginalis	100	Spring / Summer		
Crassula fragilis	100	Spring / Summer		
Crassula expansa	100	Summer		
Crassula mucosa	100 – 150	Spring / Summer		
Portulacaria afra (prostrata)	150	Spring		

A lightweight, low-maintenance roof system, typically with succulents or other hardy plant species planted into a shallow substrate (typically 100 mm) that is low in nutrients. Irrigation might be required depending on location and aspect. Plants are available in 24 plug trays, 6 packs or pre-cultivated to 95% coverage.

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