RESITRIX®

WATERPROOFING MEMBRANES

SK W
FULL BOND

FULLY SELF-ADHESIVE AND ROOT-RESISTANT

Living Roofs –
Sealed for Life

CARLISLE CM EUROPE

WWW.RESITRIX.COM

RESITRIX® SK W
WATERPROOFING MEMBRANES FULL BOND

PREFACE

The information in this publication is based on our experience and test results and is correct to the best of our knowledge and belief at the time of printing. No claims for compensation may be derived from it. We reserve the right to make improvements to our product range, in accordance with our high standards in relation to technical advancement and the progression of quality.

In this context the following details provide a basis for particular material applications in the range of planning preparations and installation of RESITRIX® SKW Full Bond waterproofing membranes.

The details in this booklet are arranged to assist the roofer when working with RESITRIX® SKW Full Bond waterproofing membranes. Experience tells us that in addition to our practical training, it is nevertheless necessary always to have up-to-date technical information.

The following information should in no way be seen as a reference book for installers who have not yet been properly trained.

At all times local Codes of practice and regulations applicable to the country in which the membranes are being installed must be complied with.

Please consult RESITRIX® technical department for further detailing and application instructions.

January, 2013

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1. PRODUCT OVERVIEW AND MATERIAL DESCRIPTION

/ RESITRIX® waterproofing membranes offer far more than 35 years of high performance roof covering for every type of flat roof.

Tens of millions of square metres already been successfully installed worldwide, in a wide variety of applications and locations.

The comprehensive and well- proven range of RESITRIX® membranes ensures the best solution for every type of roofing project.

/ RESITRIX® SKW Full Bond is a heavy duty reinforced rubber waterproofing membrane specifically designed for use beneath roof gardens and living roof systems.

1.1 General properties RESITRIX® SKW Full Bond

/ RESITRIX® SKW Full Bond is a heat-weldable and glass-reinforced composite rubber membrane with an EPDM core.

/ The underside is fully coated with self-adhesive polymer modified bitumen with a release film.

/ RESITRIX® SKW Full Bond has a standard roll size of 10 m long x 1 m wide

/ The standard weight per unit area is ca. 2.75 kg/m² with a thickness of 2.5 mm ± 10 %

RESITRIX® – MATERIAL DESCRIPTION

TPE
EPDM
GLAS SCRIM
POLYMER MODIFIED BITUMEN (SELF ADHESIVE)
PE SEPARATING LAYER
RELEASE FILM

1.2 Special features RESITRIX® SKW Full Bond

/ Proven 50 years life expectancy

/ For Intensive and Extensive Green Roof applications

/ Suitable for all Living Roofs

/ Carries FLL root-safe certification to EN 13948 (Root resistance according to FLL Procedure; FG/FU Weihenstephan Test Institute of Gardening and Horticulture)

/ European Technical Approval ETA-06/0174

/ BBA Certificate No 06/4329

/ Permanently high resistance to root penetration including the welded laps

/ Highly slip resistant surface

/ Rot and frost proof

/ Recyclable

1.3 Physical Values

Test criterion	Required value	Actual value
Tensile strength to DIN EN 12311–2	longitudinal: ≥ 250 N/50 mm transverse: ≥ 200 N/50 mm	361 N/50 mm 333 N/50 mm
Elongation at break to DIN EN 12311–2	longitudinal: ≥ 300% transverse: ≥ 300%	600% 600%
Dimensional stability after 6 hours at 80°C to DIN EN 1107–2	longitudinal: ≤ 0,5% transverse: ≤ 0,5%	+ 0,1 % + 0,2 %
Cold bending test at -30°C to DIN EN 1109 and DIN EN 495–5	no cracking	no cracking
Ozone resistance after 14 days in water to DIN EN 1844	Grade 0	Grade 0
Joints / Peel strength to DIN EN 12316–2 / Shear strength to DIN EN 12317–2	≥ 80N/50 mm ≥ 200N/50 mm	140 N/50 mm 570 N/50 mm
Water vapour diffusion resistance index (μ) to DIN EN 1931		approx. 58.000
Fire behaviour to DIN 4102, Part 1	B 2	B 2
Reaction to fire to DIN EN 13501, Part 1	Class E	Class E
Fire behaviour to DIN 4102, Part 7, and DIN EN 1187	resistant to flying sparks and radiating heat	resistant to flying sparks and radiating heat
Fire Tests on Building Materials and Structures according to BS 476 Part 3 “External Fire Exposure Roof Test”	resistant to fire	resistant to fire

1.4 Installation methods

RESITRIX® SKW Full Bond can be installed using a variety of application techniques:

- Self-adhesive application on surfaces fully primed with FG 35 primer
- Self-adhesive application on surfaces partly primed with FG 35 primer.
- Self-adhesive application without FG 35, where the substrate is freshly coated with bitumen.
- Application without FG 35, but using additional mechanical fastenings (incl. provisional bonding).
- Loose laid with spot tacking, beneath intensive (heavy) green roof systems (DIN 1055)

All details and flashing work are to be carried out using RESITRIX® SKW Full Bond.

ⓘ Please consult RESITRIX® technical department for detailing and application instructions.

1.5 System accessories: FG 35 primer

FG 35 primer is a ready-to-use adhesive primer, produced from synthetic rubber and resin to which an organic, halogen-free solvent has been added. FG 35 primer is applied in combination with RESITRIX® SKW Full Bond to a wide range of substrates.

1.6 System accessories: G500 cleaner

G500 cleaner is a degreasing agent for metal surfaces and for general cleaning of lightly soiled substrates.

ⓘ Please comply with product safety datasheets and safety guidelines shown on the tins.

2. CONVINCING PRODUCT FEATURES

RESITRIX® SKW Full Bond guarantees ultimate performance for all types of flat roof vegetation projects due to the following proven benefits all combined in this highly-flexible single-ply roofing membrane with excellent laying characteristics.

/ Certified service life of more than 50 Years

RESITRIX® SKW Full Bond is a high performance waterproofing membrane especially resistant to ageing and weathering, without additional surface protection. It is also highly resistant to the effects of ozone, UV and infra-red radiation and is unaffected by atmospheric chemicals and aggressive industrial emissions. The membrane is reinforced and highly resistant to puncture. Its very long life has been extensively proven and documented by leading independent test institutes. It is rot and frost proof and resistant to flying sparks and radiant heat, without thermal deformation.

/ RESITRIX® SKW Full Bond combines the adhesive power of polymer modified bitumen with all the superior qualities of EPDM

Due to the cross-linked molecular structure, the membrane remains fully elastic down to temperatures of –30°C and is guaranteed not to shrink throughout its entire service life. There is no measurable reduction in its weight, thickness or tensile strength and RESITRIX® SKW Full Bond retains a tear elongation factor around 500 % to accommodate building movements. Due to the fully compatible polymer modified bitumen coating, laps can be welded together with complete confidence in all weathers, including temperatures down to –10°C. The easy weldability of the membrane enables detailing work to be carried out quickly, simply and effectively. RESITRIX® SKW Full Bond is fully compatible with bitumen and is therefore ideal for overlaying existing bitumen roofs.

/ Rapid Installation – Sealed for Life

Installation of RESITRIX® SKW Full Bond is safe, simple and always reliable. All laps and watertight connections are welded with hot-air without the use of naked flames or hot bitumen. The unique lap capability of RESITRIX® enables the seams to be easily checked before applying the soil system. The welding bead gives visible confirmation of a completely reliable seal and ensures a 100 % watertight roof.

/ Unmatched environmental performance

RESITRIX® SKW Full Bond contains only ecologically safe components and no dangerous additives, chlorine or plasticisers. It is 100 % non-toxic and there is no release of chemicals throughout its entire life-cycle -unlike many other roofing systems currently being used. RESITRIX® SKW Full Bond carries an independent “Life Cycle Assessment” accreditation, proving its lack of impact on the environment throughout its entire service life – from production, lifetime on the roof, to its ultimate disposal. As all RESITRIX® waterproofing membranes are recyclable we confirm to our environmental responsibility.

3. GREEN CREDENTIALS

We attach great importance to the limitation of environmental impact due to manufacture (like use of resources and environmental emissions) and the use of RESITRIX® products throughout their entire life cycle. We therefore comply with ISO 14001 (environmental management systems).

Furthermore all RESITRIX® waterproofing membranes are subject to external and internal monitoring in accordance with the requirements of the U. E. A. t. c. guidelines.

Due to our dedication to environmental responsibility, RESITRIX® SKW Full Bond achieves A+ BRE Green Guide Rating and is top rated in green building digest.

4. BENEFITS OF LIVING ROOFS

Green roofs, living roofs and roof gardens are no longer a temporary fashion but now form an integral part of waterproofing systems. They offer a variety of important benefits.

4.1 Benefits to the building structure

/ Prolongs the service life of the roof waterproofing
/ Prevents UV degradation
/ Protects against extreme fluctuations in temperature
/ Reduces expansion and contraction caused by temperature cycling
/ Protects from hail
/ Helps prevent drainage system overflow in heavy rain
/ Added fire protection
/ Prevents encrustation on the waterproofing system
/ Improves restraint against wind uplift

4.2 Benefits to the building inhabitants

/ Creates additional garden area
/ Creation of new recreational areas
/ Generation of new all-year- round natural areas
/ Provides sound proofing against air-born noise
/ Keeps building cool in summer
/ Keeps building warm in winter
/ Increases property value
/ Attenuation of traffic-noise
/ Eligibility for grants (depending on Country)
/ Helps improve quality of lifestyle

4.3 Benefits to the local environment

/ Improves the micro climate
/ Provides new natural habitat for flora and fauna
/ Improves air-quality by filtering and binding dust
/ Absorption of dust and exhaust fumes
/ Retains moisture in the atmosphere in summer
/ Counteracts the effects of intensive urban development

4.4 Benefits to the drainage system

/ Reduced risk of overflow in drains
/ Relieves peak flow pressure on streams and rivers
/ Can avoid the need for rainwater retention reservoirs
/ Reduces the effects of intensive paving and land sealing

5. ROOF VEGETATION EXAMPLES

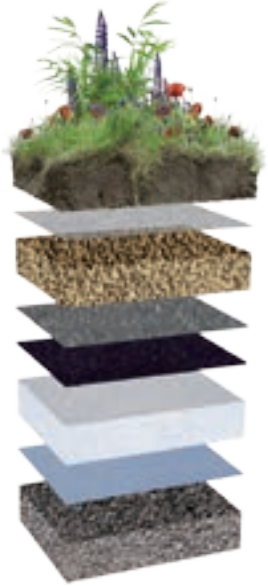
Roof gardens and vegetation projects can be classified as

/ Intensive roof vegetation projects and

/ Extensive roof vegetation projects

The intensive roof vegetation applies to creation of a green zone with lawns, perennials, flower beds and small bushes or punctual greening with trees. Extensive roof vegetation comprises greening with moss, sedum vegetation, grass, weed and small perennial vegetation.

5.1 Intensive roof vegetation



Typical intensive green roof build-up

... Vegetation Layer
... Filter layer

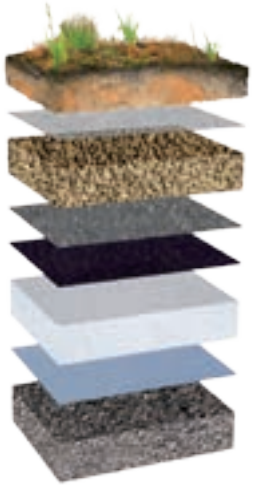
... Drainage layer
... Protective layer
... RESITRIX® SKW Full Bond Waterproofing Membrane

... Thermal insulation
... Vapour barrier ALUTRIX® 600

... Substrate

Costs:	Moderate to high
Effort for maintenance:	Moderate to high
Greenery:	Freely designable Lawns, flower beds, small bushes, trees
Installation height (depth of green roof construction):	starting from 20 cm
Weight:	starting at 175 kg/m²
Gardening workload:	high

5.2 Extensive roof vegetation



Typical extensive green roof build-up

... Vegetation Layer
... Filter layer

... Drainage system
... Protective layer
... RESITRIX® SKW Full Bond Waterproofing Membrane

... Thermal insulation
... Vapour barrier ALUTRIX® 600

... Substrate

Costs:	low
Effort for maintenance:	low
Greenery:	Grass, sedum, weed vegetation, moss, herbs
Installation height (depth of green roof construction):	starting from 7 cm
Weight:	starting at 25 kg/m²
Gardening workload:	low to moderate

6. STORAGE OF RESITRIX® SKW FULL BOND

RESITRIX® SKW Full Bond rolls must be transported and stored on end in the original packaging. Pallets are wrapped in UV-protective film. Rolls should remain under this cover until ready to be used. In originally packed state the rolls have a shelf-life of 12 months.

Especially when working in strong sun-light it is important to ensure that rolls taken from the pallet are installed immediately while the remaining rolls are to remain under the above-mentioned protective cover.

/ Certification to
DIN EN ISO 9001 and
DIN EN ISO 14001

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