SAINT-GOBAIN

FLAT ROOF SOLUTIONS

SAINT-GOBAIN

maris SAINT-GOBAIN

isover SAINT-GOBAIN

weber SAINT-GOBAIN

chryso SAINT-GOBAIN

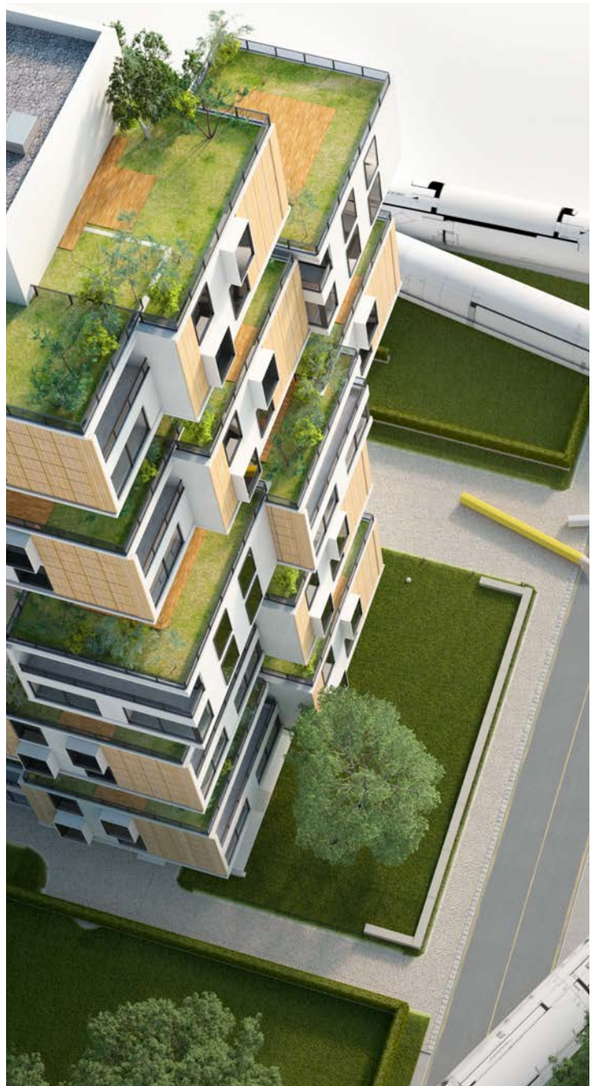
About Saint-Gobain

Worldwide leader in light and sustainable construction, Saint-Gobain designs, manufactures and distributes materials and services for the construction and industrial markets. Its integrated solutions for the renovation of public and private buildings, light construction and the decarbonization of construction and industry are developed through a continuous innovation process and provide sustainability and performance.

About Construction Chemicals

Saint-Gobain's construction chemicals include formulations and finished products for bonding, sealing, waterproofing, protecting, reinforcing, and finishing various building materials, both in new construction and renovation, for buildings and infrastructure. These solutions are designed to be more innovative and sustainable, enhancing construction performance, supporting building decarbonization, and simplifying processes for our customers. The main international brands represented are Weber, Maris including a.b.e.® and Technical Finishes. With such innovative solutions that combine sustainability and performance, Saint-Gobain is accelerating its growth in the construction chemicals market.

INDEX **PAGE**



SAINT-GOBAIN
MAKING THE WORLD A BETTER HOME

SAINT-GOBAIN

a.b.e.®, a division of the Saint-Gobain Group specializes in products and systems for construction, waterproofing, flooring, and concrete repair. a.b.e.® provide solutions that address various construction needs, including infrastructure projects, residential buildings, and industrial applications.

maris SAINT-GOBAIN

Maris, a division of the Saint-Gobain Group, is a leading manufacturer of polyurethane specializing in the research, development, and trading of waterproofing, protective, and repair solutions for over 30 years.

isover SAINT-GOBAIN

Isover Isover South Africa is a leading manufacturer of high-performance insulation products. As part of the global Saint-Gobain group, Isover specializes in producing thermal and acoustic insulation solutions for residential, commercial, and industrial applications. Their products are designed to enhance energy efficiency, comfort, and fire safety in buildings, and are recognized for their sustainability and compliance with South African fire safety regulations.

weber SAINT-GOBAIN

Weber, a division of the Saint-Gobain Group, designs, manufactures, and markets solutions for façade, tiling, flooring, waterproofing, roofing, masonry mortars, plastering mortars and sealants. Weber cares about building better for people and the planet by offering solutions that deliver sustainability and performance.

chryso SAINT-GOBAIN

Chryso, a subsidiary of Saint-Gobain, is a global leader in construction chemicals, developing innovative solutions and services for sustainable construction.

Torch-on waterproofing membrane

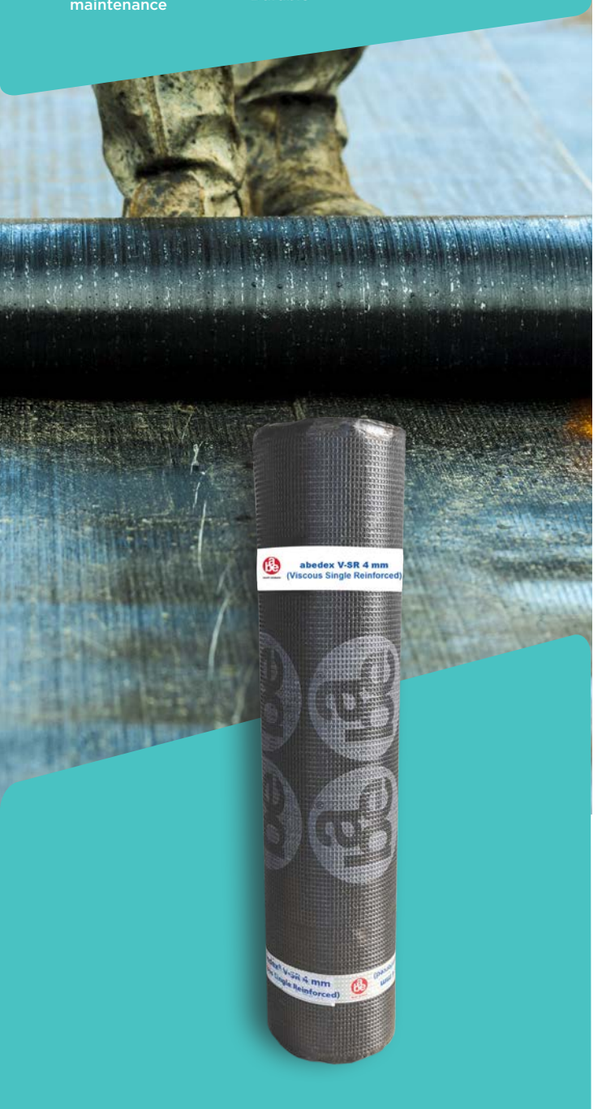
Weather resistant

Proven reliability

High adhesion

Low maintenance

Durable



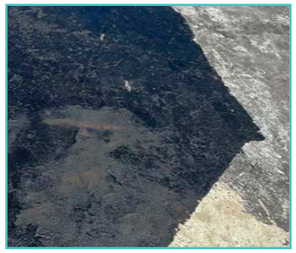
Flat Roof Systems Guide

1 Substrate

Surface areas should be dry, clean and sound, free of voids, sharp protrusions or contaminants. The substrate shall meet SANS 10400-L requirements. The moisture content is not to exceed 7% prior to torch-on applications. Sand-cement or lightweight screeds should not contain more than 10 % moisture by weight.

2 Primer

Prime all surfaces with **bituprime**, including all verges, and around outlets and protrusions and allow the solvent to evaporate. Highly porous surfaces need to be re-primed. For renovations, remove the existing waterproofing before priming. Consult an **a.b.e.**® Technical Representative where overlayment of existing waterproofing is required. Allow primer to cure.



3 Application

1. The sheets should be laid overlapping each other starting from water outlets or roof valleys.
2. Side - to - side: these create the joint lengthwise between two sheets. The sheets should be carefully bonded until a bead of compound about 10 mm is squeezed out of the join along the overlap line. based - to - side overlaps (side lap) should not be less than 100 mm wide.
3. Head-to-tail joints, which form along the shorter sides of the sheets should be overlapped by at least 150 mm. The sheets should be carefully bonded until a bead of compound about 10 mm is squeezed out of the join along the overlap line.
4. When laying reinforced sheets semi-bonded with non-woven polyester near the head-to-tail overlaps, ensure the sheet is fully bonded to the surface for at least 1 meter.

5. At the head -to tail joints, measure and mark 100 mm along the heat-to-tail joint and 150 mm along the side -to-side joint. Join the two points with a straight line, cut and remove marked section. To bond the head-to-tail
6. Mineral Finish overlaps, heat the underlying membrane until the compound rises to the surface. Keep heating consistently to ensure the edges bond perfectly when the compound on the top sheets is also heated.
7. When applying the second layer of the waterproofing membrane, make sure the joints of the second layer are staggered by 500 mm from the joints of the first layer.

4 Flashings

Counter flashing over the balance of the parapet is recommended using **super laycryl** or **super laykold** incorporating **abe**® **membrane**, details as recommended in our datasheet. Ensure the lap over the torched membrane is at least 150 mm.

5 Outlets

Specific attention must be given to the detail work when waterproofing the outlets to prevent ingress of moisture.

6 Protection

Apply UV protection to the waterproofing layer.

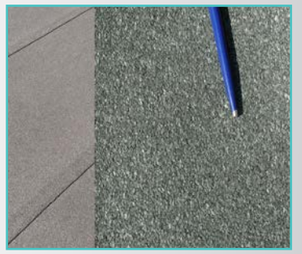
silvakote® is a reflective aluminium paint with a bitumen solution ideal for concrete surfaces. **silvakote**® may be applied by conventional spray or by brush or roller. On large applications it is often applied by soft broom or roofing mop. Coverage is very dependent on the porosity of the surface.

Single layer vs Double layer waterproofing

When choosing between single and double waterproofing layers, consider factors ease of maintanance and repair of the waterptoofing systems.

Single waterproofing layer

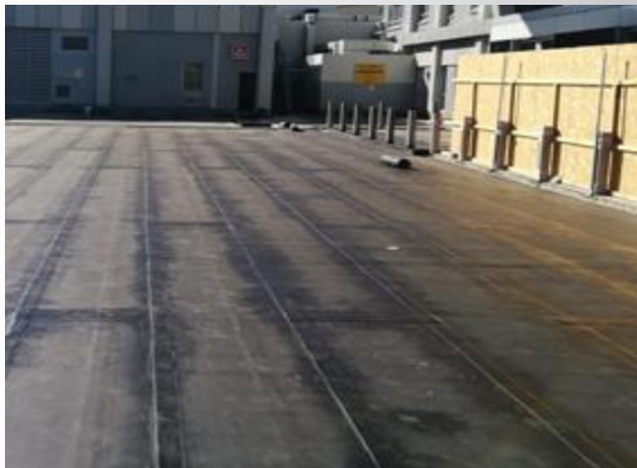
A single layer waterproofing is more affordable, but it provides less durable protection. It's best suited for flat roofs where the torch-on system can be easily accessed for repairs and maintenance.



Double waterproofing layer

A double layer waterproofing offers superior durability and reliability.

It's recommended for flat roofs where the torch-on system is
difficult to access for repairs and maintenance.



Liquid waterproofing membrane

Easy installation

Durable

Shape-adaptive

No torch/fire

1 Substrate

Surface areas should be dry, clean and sound, free of voids, sharp protrusions or contaminants. The substrate shall meet SANS 10400-L requirements. The moisture content is not to exceed 7% prior to application of water proofing. Sand-cement or lightweight screeds should not contain more than 10 % moisture by weight.

2 Primer

Prime the surface with a product specific primer, sealer and bonding agent to prepare surfaces prior to the application of a waterproofing membrane and coating systems.

3 Application

1. Critical areas, such as wall-floor connections, pipe outlets, chimneys, siphons etc. must first be waterproofed with the waterproofing coating and then reinforced with proprietary fabric. Proprietary fabric is rolled over the still wet waterproofing coating and pressed in to soak. Enough waterproofing coating is then applied until full saturation of the fabric.

2. The waterproofing coating is being applied on the primed surface. Where required (system dependent) install fabric. Proprietary fabric is rolled over the still wet waterproofing coating and pressed in to soak. Apply 2nd layer of waterproofing coating until full saturation of the fabric.

3. After curing of the waterproofing, the appropriate protection aganist UV and/or mechanical samage is applied on the entire surface.

Cementitious waterproofing

Easy to apply

Durable

Shape-adaptive

Cost effective

Breathable

1 Substrate

Surface areas should be dry, clean and sound, free of voids, sharp protrusions or contaminants. The surfaces shall have a relative fine float finish as the surface texture if coarse will influence the finish of the cementitious waterproofing applied. Cementitious waterproofing should be applied to a damp surface but not into free water. See all relative data sheets for details.

2 Application

1. Critical areas, such as wall-floor connections, pipe outlets, chimneys, and siphons, must first be waterproofed with a waterproofing coating. Then, reinforce these areas with an **ecofelt membrane**, ensuring it spans 100 mm over the horizontal surface and 100 mm up the vertical face. Using a block brush, apply cementitious waterproofing over the critical areas. Embed the saturated **ecofelt membrane** firmly into the 1st wet coat of cementitious waterproofing. Finally, apply a 2nd coat of cementitious waterproofing to fully saturate and cover the **ecofelt membrane** layer.

2. Apply cementitious waterproofing over the entire surface. For waterproofing of flat surfaces i.e. walls and floors of non-water retaining structures apply **duraflex®** at a rate of 4 kg/m² in two coats i.e. 2 kgs/m² per coat. Where required as per specification install **ecofelt membrane** over the entire surface.

3. **duraflex®** may be applied with a short bristled brush, rubber squeegee, trowel, or spray.

4. <u>Brush:</u> Should be applied in three coats to provide a final dry film thickness of 2 mm to 3 mm on the surface. Alternate coats should be applied at right angles to each other, allowing 16 hours between coats.

5. <u>Trowel:</u> 1st coat should be applied at a thickness of 1 mm to 1.5 mm using a normal trowel. Allow curing for 16 hours. 2nd coat should be applied by using a notched trowel and levelled immediately by using a spiked roller.

Cold applied waterproofing

Easy installation

Excellent adhesion

No torch-fire

Durable

Low maintenance

1 Substrate

Surface areas should be dry, clean and sound, free of voids, sharp protrusions or contaminants. The substrate shall meet SANS 10400-L requirements. The moisture content is not to exceed 7% prior to application of water proofing. Sand-cement or lightweight screeds should not contain more than 10 % moisture by weight.

2 Primer

Prime all surfaces with proprietory primer, ensuring coverage of verges, around outlets, and protrusions. Allow the solvent to evaporate. Re-prime highly porous surfaces as needed. Allow primer to cure.

3 Application

The membrane should only be removed prior to application.

Complete all detailing for inside and outside corners first.

Carefully apply the membrane while removing the release paper. Firmly press the cold applied membrane onto the prepared, primed surface by hand, ensuring there are no creases or air bubbles and that it is fully bonded to the substrate. Side and end laps are to be a minimum of 50 mm for 150 mm and 300 mm wide rolls.

For 600 mm wide rolls, side laps are to be a minimum of 50 mm and end laps 100 mm.

Internal corner and external-corner detailing.

Cold applied waterproofing should receive hard wearing surface such as tiles etc.

Suitable expansion joint details are to be allowed for in the tiling application.

Flood Test

A flood test is a quality control procedure used to verify the effectiveness of waterproofing systems. Flood test is used to verify the correct installation and performance of the waterproofing system or to identify potential leaks before they cause significant damage.

When conducting a flood test, ensure the waterproofing membrane is fully installed and sealed. Isolate the area with temporary dams or barriers.Fill the isolated area with water to a specific depth and let it stand for 24 to 72 hours. Monitor the water level for leaks and inspect the membrane and surrounding areas.

When conducting a flood test, consider weather conditions to avoid complications like rain, and ensure the structure can bear the additional weight of the water. Flood tests may not detect very small leaks or slow water migration, so other methods like electronic leak detection or infrared thermography might be needed. Consulting structural engineers may be necessary for large areas to ensure safety.

Design Considerations

This document covers typical and standard roof waterproofing applications for specification purposes. Before making the final decision on site, consideration should be given to other designs and installation factors that might impact the choice of waterproofing.

These factors might be installation, time, cost, skills of the applicators, shape of the substrate, ease of maintenance etc.

SANS 10400-L: Roofs outlines the functional regulations for roof coverings and waterproofing systems to ensure they:

Resist rain penetration, UV radiation, condensation, chemical attacks, and temperature extremes.

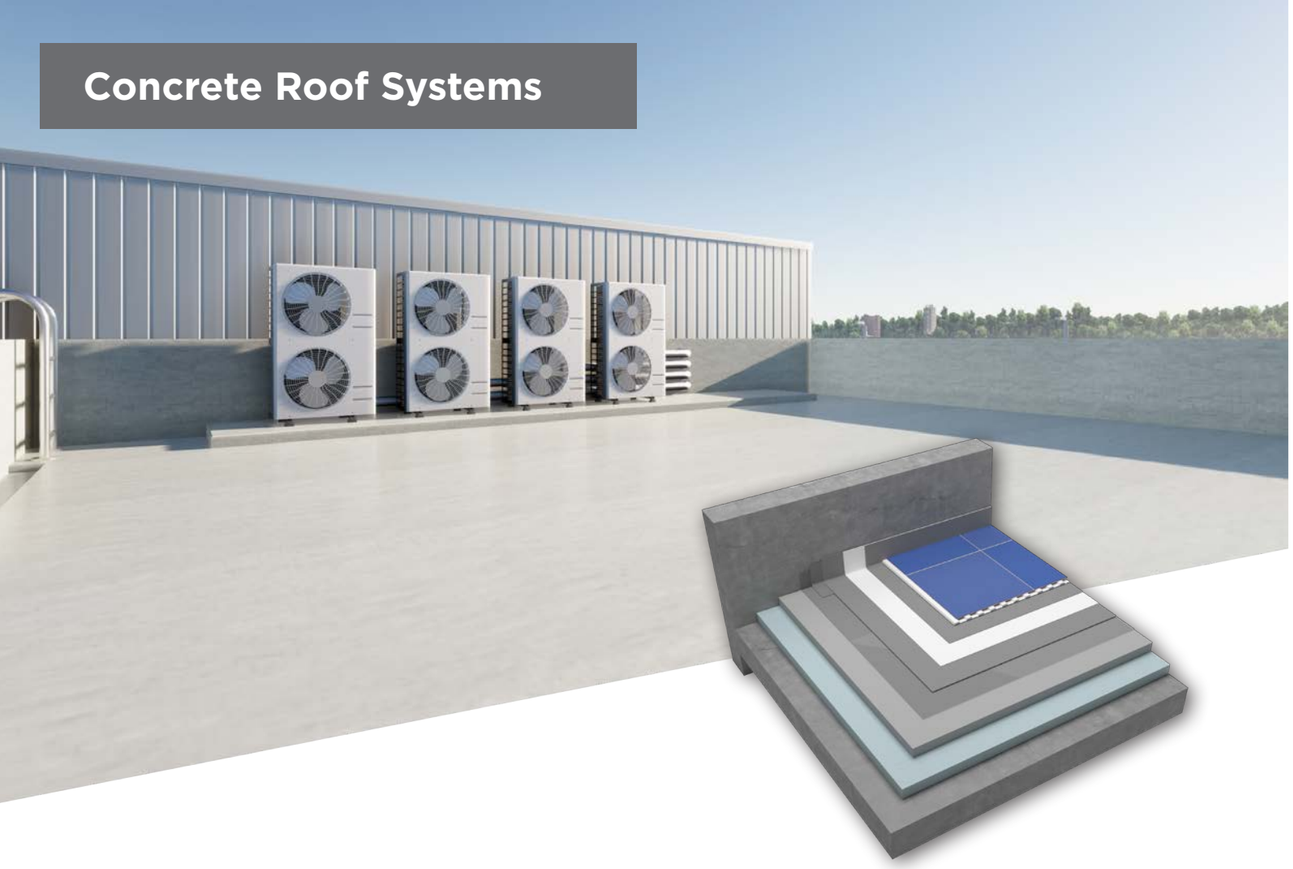
Can be effectively repaired despite aging.

Resist bacterial, lichen, and fungal growth, as well as puncturing and penetration

Withstand reversible and irreversible movements from the roof structure

Waterproofing systems must maintain their properties with normal maintenance for at least 10 years for easily repairable systems and 20 years for difficult-to-replace systems.

Concrete Roof Systems



Concrete is porous due to capillary tracks. It can also be weak and show cracks and voids due to its composition, application, and weather conditions. Waterproofing is essential to prevent water ingress, which can lead to steel oxidation and structural weakening, as well as interior damage.

Concrete surfaces are usually screeded to the required fall per SANS 10400-L. Flat roofs should have a fall towards external gutters, outlets, or roof edges of at least 1:80 without water flow interruption, and 1:50 with interruption. Where two directional falls intersect, a minimum finished fall of 1:80 should be maintained along the miter. Corner fillets with horizontal and vertical dimensions of at least 75 mm should be provided.

Concrete or screed should be clean, sound, and free of voids, sharp protrusions, or contaminants. Surfaces should have a light steel troweled or fine wood float finish. All surfaces should dry before applying any waterproofing system. For **abedex systems**, concrete should not contain more than 7 % moisture by weight, and sand-cement or lightweight screeds should not contain more than 10 % moisture by weight. For Mariseal systems concrete and/or screed should not contain more than 5 % moisture content.

When using lightweight screeds, a minimum 20 mm thick sand-cement screed should be laid on top to receive waterproofing, as lightweight screeds can be too porous and friable for good adhesion. For foam insulation, a reinforced screed should be laid over the insulation material.

The roof assembly, including the waterproofing, screed, concrete slab, and ceiling, must meet SANS 10400-XA requirements.

System	Product
Torch-on waterproofing systems	**bituprime**
	abedex® VSR 4 mm
	silvakote®
	silvakote® eco
	abedex® unigum 4 mm
	abedrain® G + ballast
	abedex® unigum MS
Liquid applied waterproofing systems	**abeproof liquid membrane primer**
	abeproof liquid membrane
	super laycryl®
	silvakote®
	silvakote® eco
	Mariseal®
	abeproof acrylic water based primer
	abeproof PU eco

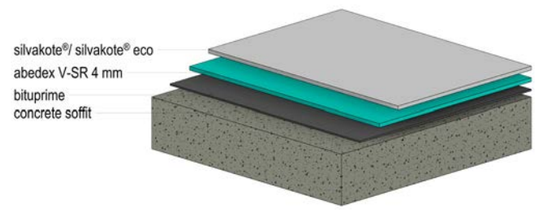
SAINT-GOBAIN

Torch-on waterproofing and drainage systems

a.b.e.® Waterproofing Systems

abedex-concrete-silva-100VSR

Can be used on sloping surfaces; flat, vertical and curved surfaces. Can only accommodate maintenance traffic.



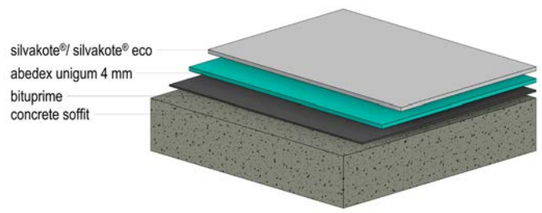
Application	
Primer	**bituprime**
1st Layer waterproofing	**abedex® VSR 4 mm**
Waterproofing UV protection	**silvakote® | silvakote® eco**

System Specification

Install **abedex®** waterproofing system which includes **abedex® VSR 4 mm** with 100 mm side laps and 150 mm end laps, applied to a surface primed with **bituprime**. Ensure the surface is laid according to SANS 10400-L requirements. Finish with two coats of **silvakote®** or **silvakote® eco.**

abedex uni-concrete-silva-100UNI

For flat surfaces. Can accommodate maintenance traffic only.



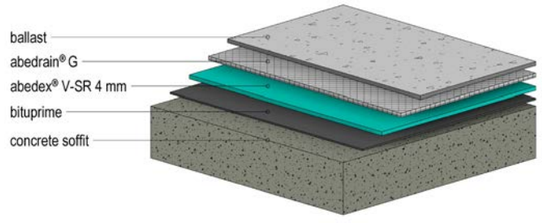
Application	
Primer	**bituprime**
1st Layer waterproofing	**abedex® unigum 4 mm**
Waterproofing UV protection	**silvakote® | silvakote® eco**

System Specification

Install **abedex®** waterproofing system which includes **abedex® unigum 4 mm** with 100 mm side laps and 150 mm end laps, applied to a surface primed with **bituprime**. Ensure the surface is laid according to SANS 10400-L requirements. Finish with two coats of **silvakote® /silvakote® eco.**

abedex concrete-ballast-100VSR

For flat surfaces. Can accommodate maintenance traffic only.



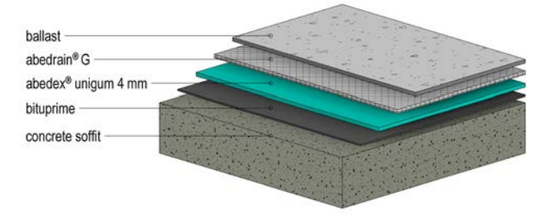
Application	
Primer	**bituprime**
1st Layer waterproofing	**abedex® V-SR 4 mm**
Protection & drainage	**abedrain® G + ballast**

System Specification

Install **abedex®** waterproofing system which includes **abedex® V-SR 4 mm** with 100 mm side laps and 150 mm end laps, applied to a surface primed with **bituprime**. Ensure the surface is laid according to SANS 10400-L requirements. Finish with a 50 mm layer of 19-25 mm ballast laid on **abedrain® G** separation layer.

abedex concrete-ballast-100UNI

For flat surfaces. Can accommodate maintenance traffic only.



Application	
Primer	**bituprime**
1st Layer waterproofing	**abedex® unigum 4 mm**
Protection & drainage	**abedrain® G + ballast**

System Specification

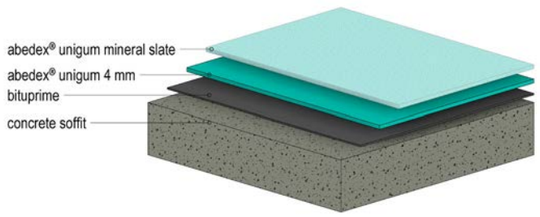
Install **abedex®** waterproofing system which includes **abedex® unigum 4 mm** with 100 mm side laps and 150 mm end laps, applied to a surface primed with **bituprime**. Ensure the surface is laid accordaing to SANS 10400-L requirements. Finish with a 50 mm layer of 19-25 mm ballast laid on **abedrain® G** separation layer.

Torch-on waterproofing and drainage systems

a.b.e.® Waterproofing Systems

abedex-concrete-mineral-200

For flat surfaces. Can accommodate maintenance traffic only.



Application	
Primer	**bituprime**
1st Layer waterproofing	**abedex® unigum 4 mm**
2nd Layer waterproofing	**abedex® unigum MS**

System Specification

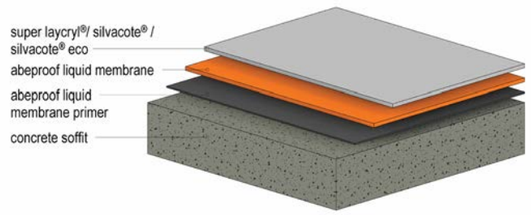
Install **abedex®** waterproofing system which includes 1st layer **abedex® unigum 4 mm** and a 2nd layer of **abedex® unigum MS** with 100 mm side laps and 150 mm end laps applied to a surface primed with **bituprime**. Ensure the surface is laid according to SANS 10400-L requirements.

Liquid applied waterproofing systems

a.b.e.® Waterproofing Systems

abeproof-liq-concrete-l00

Suitable for areas that are subject maintenance traffic only.



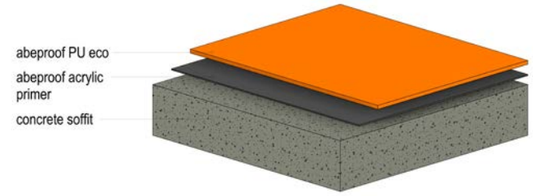
Application	
Primer	**abeproof liquid membrane primer**
Waterproofing	**abeproof liquid membrane**
Waterproofing UV protection	**super laycryl® | silvakote® | silvakote® eco**

System Specification

Install the **abeproof waterproofing system,** which includes two coats of **abeproof liquid membrane** applied to a surface primed with **abeproof liquid membrane primer**. Ensure the surface is laid according to SANS 10400-L requirements. Finish with two coats of **silvakote®** or **silvakote® eco** or **super laycryl®.**

abeproof-liq-concrete-l00

Suitable for areas that are subject maintenance traffic only.



Application	
Primer	**abeproof acrylic water based primer**
Waterproofing	**abeproof PU eco**

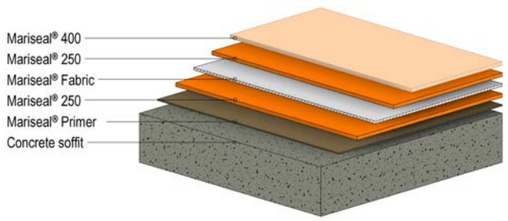
System Specification

Install the **abeproof waterproofing system,** which includes two layers of **abeproof PU eco** applied to a surface primed with **abeproof liquid membrane primer**. Ensure the surface is laid according to SANS 10400-L requirements.

Mariseal® Waterproofing Systems

Mariseal-concrete-400

Suitable for areas that are subject maintenance traffic only.



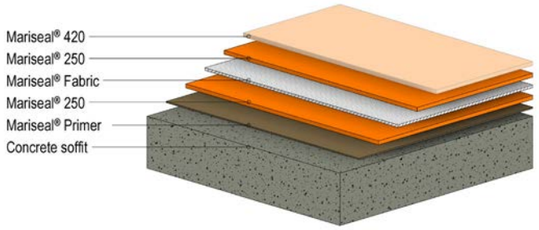
Application	
Primer	**Mariseal® Primer**
1st Layer waterproofing	**Mariseal® 250**
Reinforcing layer	**Marisealv Fabric 110 gsm**
2nd Layer waterproofing	**Mariseal® 250**
Waterproofing UV protection	**Mariseal® 400**

System Specification

Install the **Mariseal® waterproofing system**, which includes two layers of **Mariseal® 250** reinforced with **Mariseal® Fabric**, applied to a surface primed with **Mariseal® Primer**. Ensure the surface is laid according to SANS 10400-L requirements. Finish with two coats of **Mariseal® 400**.

Mariseal-concrete-420

Suitable for trafficable surfaces - pedestrian traffic.

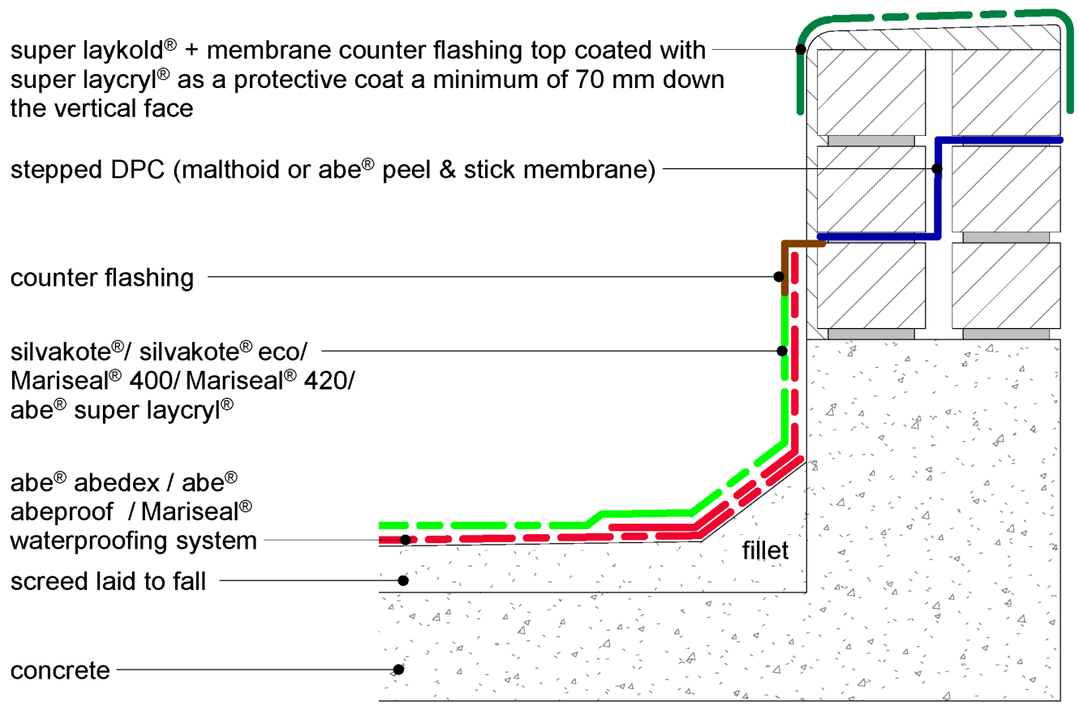


Application	
Primer	**Mariseal®Primer**
1st Layer waterproofing	**Mariseal®250**
Reinforcing layer	**Mariseal® Fabric 110 gsm**
2nd Layer waterproofing	**Mariseal® 250**
Waterproofing UV protection	**Mariseal® 420**

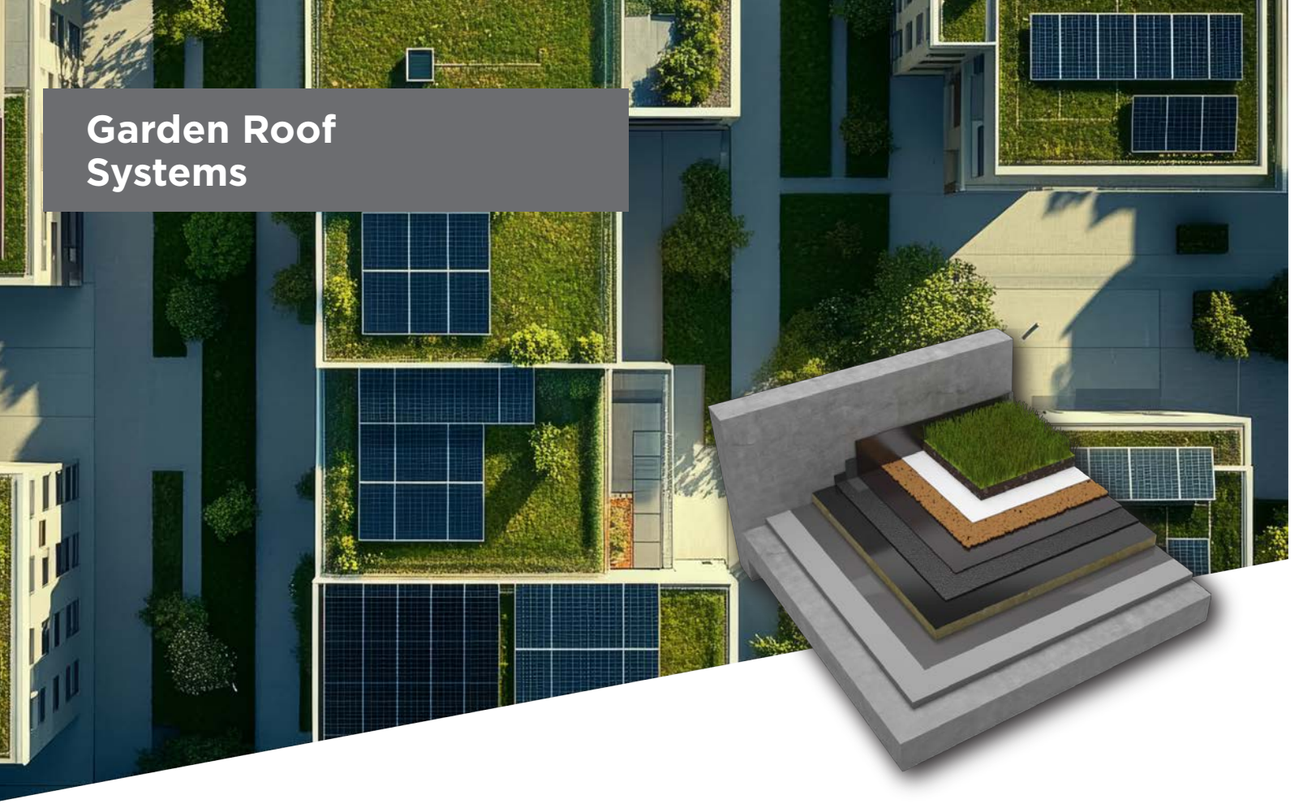
System Specification

Install the **Mariseal® waterproofing system**, which includes two layers of **Mariseal® 250** reinforced with **Mariseal® Fabric**, applied to a surface primed with **Mariseal® Primer**. Ensure the surface is laid according to SANS 10400-L requirements. Finish with two coats of **Mariseal® 420**.

Concrete Roof Systems Typical Detailing



Garden Roof Systems



A garden roof system (green roof or living roof) involves growing vegetation on a building's rooftop, offering environmental, aesthetic, and economic benefits. These systems can be used for new roofs or renovations.

Types of Garden Roof Systems:

Extensive Green Roofs: Lightweight, with a thin growing medium (50 mm to 150 mm), planted with low-maintenance, drought-resistant vegetation like sedums and grasses. Ideal for buildings with limited structural capacity and minimal maintenance.

Intensive Green Roofs: Heavier, with a deeper growing medium (over 150 mm), supporting a variety of plants, including shrubs and small trees. Often feature walkways, seating areas, and water features. Require more maintenance.

Semi-Intensive Green Roofs: A hybrid of extensive and intensive systems, with a medium-depth growing medium, supporting a mix of plant types and requiring moderate maintenance.

Key Considerations:

The building structure must support the additional load from wet soil and plants.

A waterproofing layer is essential to prevent water ingress, which can weaken the structure and damage interiors. Garden roofs are installed on concrete flat roofs, which should be screeded to the required fall per SANS 10400-L standards.

Before applying waterproofing, concrete or screed surfaces must be clean, sound, and dry, with specific moisture content limits. Insulation systems can be installed above or below the waterproofing layer, and the entire roof assembly must meet SANS 10400-XA requirements.

System	Product
Torch-on waterproofing systems	bituprime
	abedex® VSR 4 mm
	abedex® AR
	abedrain® 20P
	abedrain® G
Liquid applied waterproofing systems	Mariseal®
	abedrain®20P
	abedrain® G
	bidim®
Cold applied waterproofing systems	Bithuthene Deck Prep
	Bithuthene 4000
	abedrain® G
	bidim®

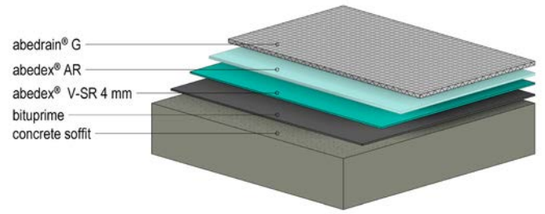
SAINT-GOBAIN

Torch-on waterproofing and drainage systems

a.b.e.® Waterproofing Systems

abedex-garden-roof-extensive

Suitable for extensive garden roof systems.



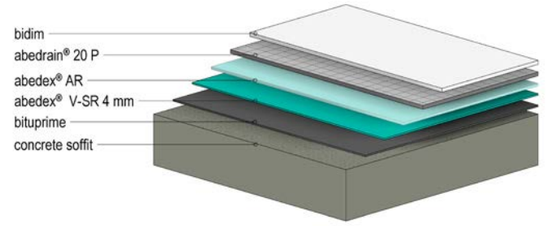
Application	
Primer	**bituprime**
1st Layer waterproofing	**abedex® V-SR 4 mm**
2nd Layer waterproofing	**abedex® AR**
Protection & drainage	**abedrain® G**

System Specification

Install **abedex®** **waterproofing system** which includes 1st layer **abedex®** **V-SR 4 mm** and a 2nd layer of **abedex®** **AR** with 100 mm side laps and 150 mm end laps, applied to a surface primed with **bituprime**. Ensure the surface is laid according to SANS 10400-L requirements. Install **abedrain®** **G** (with geo-fabric) protection and drainage layer. Install planting medium.

abedex-garden-roof-intensive

Suitable for intensive and semi-intensive garden roof systems.



Application	
Primer	**bituprime**
1st Layer waterproofing	**abedex® V-SR 4 mm**
2nd Layer waterproofing	**abedex® AR**
Protection & drainage	**abedrain® 20P**
Geotextile layer	**bidim®**

System Specification

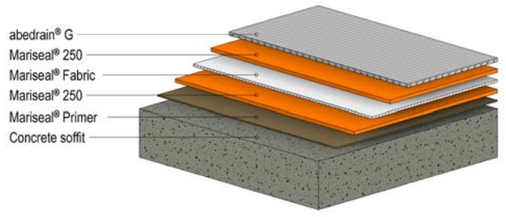
Install **abedex®** waterproofing system which includes 1st layer **abedex®** **V-SR 4 mm** and a second layer of **abedex®** **AR** with 100 mm side laps and 150 mm end laps, applied to a surface primed with **bituprime**. Ensure the surface is laid according to SANS 10400-L requirements. Install **abedrain®** **20P** protection and drainage layer. Install **bidim®** geotextile membrane to receive planting medium.

Liquid applied waterproofing systems

Mariseal® Waterproofing Systems

Mariseal-garden-roof-extensive

Suitable for areas that are subject maintenance traffic only.



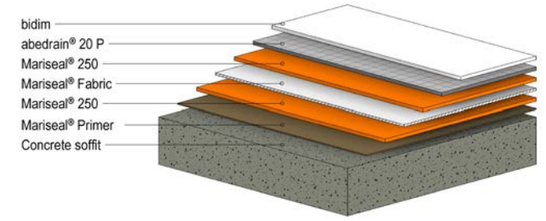
Application	
Primer	**Mariseal® Primer**
1st Layer waterproofing	**Mariseal® 250**
Reinforcing layer	**Mariseal® Fabric 110 gsm**
2nd Layer waterproofing	**Mariseal® 250**
Protection & drainage	**abedrain® G**

System Specification

Install the **Mariseal®** **waterproofing system**, which includes two layers of **Mariseal®** **250** reinforced with **Mariseal®** **Fabric 110 gsm**, applied to a surface primed with **Mariseal®** **Primer**. Ensure the surface is laid according to SANS 10400-L requirements. Install **abedrain®** **G** protection and drainage layer.

abedex-garden-roof-intensive

Suitable for areas that are subject maintenance traffic only.



Application	
Primer	**Mariseal® Primer**
1st Layer waterproofing	**Mariseal® 250**
Reinforcing layer	**Mariseal® Fabric 110 gsm**
2nd Layer waterproofing	**Mariseal® 250**
Protection & drainage	**abedrain® 20P**
Geotextile layer	**bidim®**

System Specification

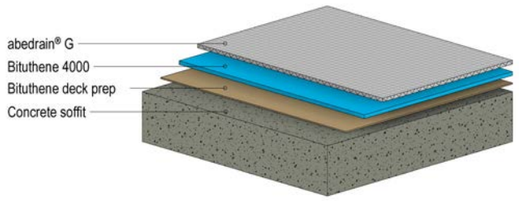
Install the **Mariseal®** **waterproofing system**, which includes two layers of **Mariseal®** **250** reinforced with **Mariseal®** **Fabric 110 gsm** applied to a surface primed with **Mariseal®** **Primer**. Ensure the surface is laid according to SANS 10400-L requirements. Install **abedrain®** **20 P** protection and drainage layer. Install **bidim®** geotextile membrane to receive planting medium.

Cold applied waterproofing systems

Chryso® Waterproofing Systems

Bithuthene garden-roof-extensive

Suitable for extensive garden roof systems.



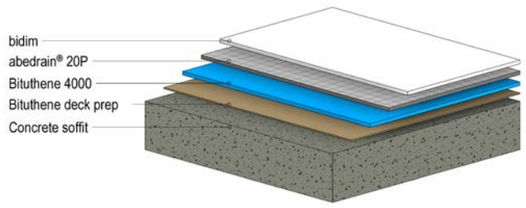
Application	
Primer	**Bithuthene Deck Prep**
1st Layer waterproofing	**Bithuthene 4000**
Protection & drainage	**abedrain® G**

System Specification

Install the **Chryso® Bithuthene waterproofing system**, which includes one layer of **Chryso® Bithuthene 4000**, applied to a surface primed with **Bithuthene Deck prep**, to a surface laid according to SANS 10400-L requirements. Install **abedrain® G** (with geo-fabric) protection and drainage layer. Install planting medium.

Bithuthene garden-roof-intensive

Suitable for intensive and semi-intensive garden roof systems.



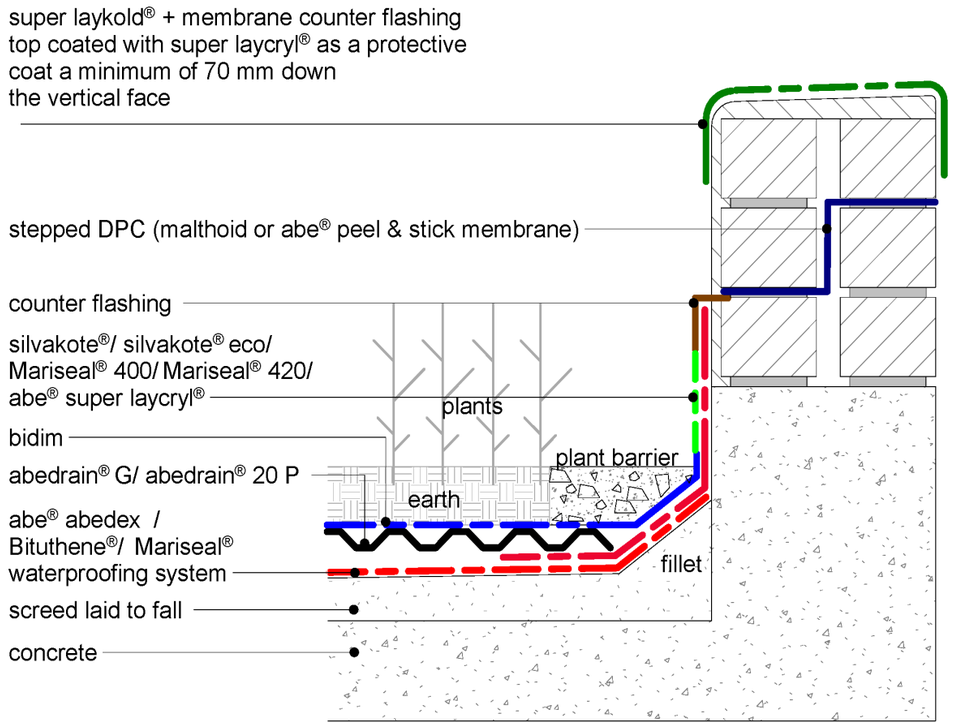
Application	
Primer	**Bithuthene Deck Prep**
1st Layer waterproofing	**Bithuthene 4000**
Protection & drainage	**abedrain® 20P**
Geotextile layer	**bidim®**

System Specification

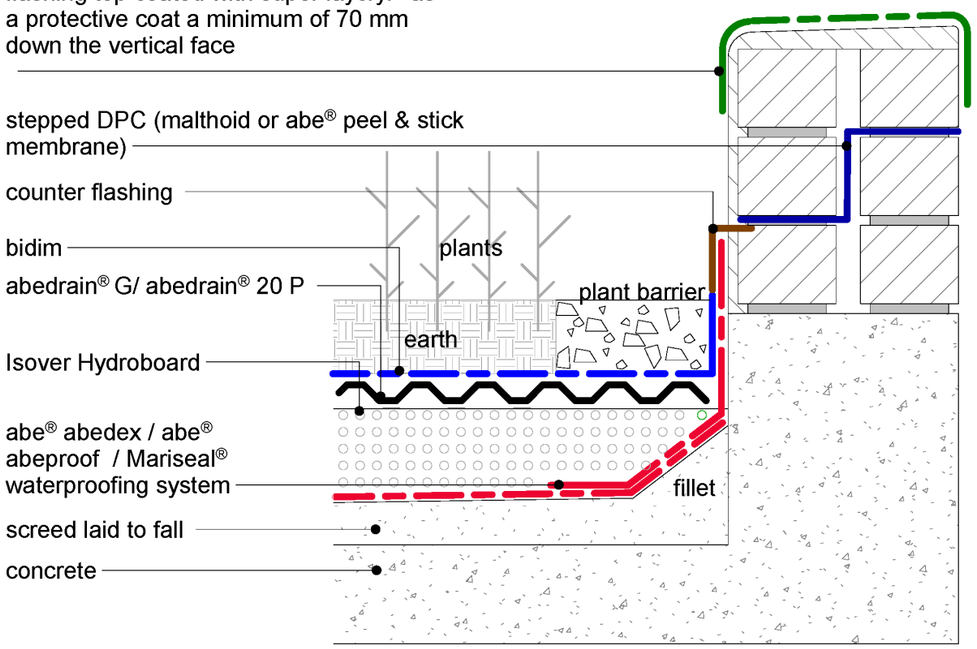
Install the **Chryso® Bithuthene waterproofing system**, which includes one layer of **Chryso® Bithuthene 4000**, applied to a surface primed with **Bithuthene Deck prep**, to a surface laid according to SANS 10400-L requirements. Install **abedrain® 20P** protection and drainage layer. Install **bidim®**geotextile membrane to receive planting medium.

Garden Roof Systems Typical Detailing

Garden roof with no insultation



Garden roof with insulation



Parking Decks

Concrete used on parking decks is porous and can develop cracks and voids due to its composition, application, and weather conditions. Waterproofing is essential to prevent water ingress, which can lead to steel oxidation and structural weakening. For parking decks over livable spaces, water ingress can also damage building interiors.

Concrete surfaces should be screeded to the required fall per SANS 10400-L standards. Flat roofs should have a fall towards external gutters, outlets, or roof edges of at least 1:80, or 1:50 where water flow is interrupted. At intersections of directional falls, a minimum fall of 1:80 should be maintained, with corner fillets of at least 75 mm.

For abedex systems, Concrete should not contain more than 7 % moisture by weight, and sand-cement or lightweight screeds should not contain more than 10 % moisture by weight. For **Mariseal systems** concrete and/or screed should not contain more than 5 % moisture.

For lightweight screeds, a sand-cement screed should be laid on top to ensure good adhesion of waterproofing systems. If foam insulation is used, a reinforced screed should be laid over it.

The parking deck roof assembly, including the trafficable layer, waterproofing, screed, concrete slab, and ceiling, must meet SANS 10400-XA requirements.

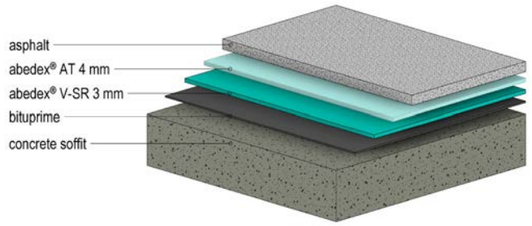
System	Product
Torch-on waterproofing systems	**bituprime**
	abedex® V-SR 3 mm
	abedex® V-SR 4 mm
	Asphalt
	abedex® AT 4 mm
	bidim®
	Malthoid 3 ply
Liquid applied waterproofing systems	**Mariseal®**
	abeproof liquid membrane
	super laycryl®
	silvakote®
	silvakote® eco
	Mariseal®
	Malthoid 3 ply

Torch-on waterproofing and drainage systems

a.b.e.® Waterproofing Systems

abedex-asphalt-parking-200AT

For parking desks surfaced minimum 40mm thickness of asphalt



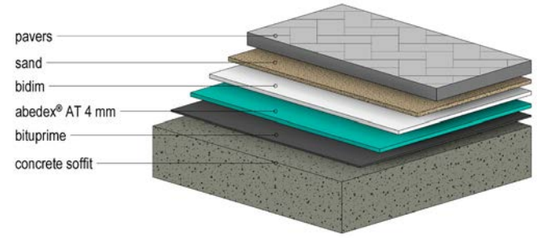
Application	
Primer	**bituprime**
1st Layer waterproofing	**abedex® V-SR 3 mm**
2nd Layer waterproofing	**abedex® AT 4 mm**
Finish	**Asphalt**

System Specification

Install **abedex®** waterproofing system which includes 1st layer **abedex® V-SR 3 mm**, and 2nd layer **abedex® AT 4 mm**, with 100 mm side laps and 150 mm end laps. These layers should be applied to a surface primed with **bituprime**. Ensure the surface is laid according to SANS 10400-L requirements. Apply a minimum of 40 mm of asphalt onto the **abedex® AT** layer.

abedex-paved-parking-100BID

For paved parking deck surfaces.



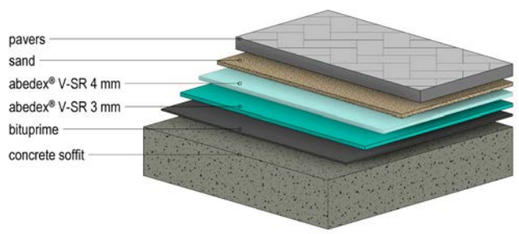
Application	
Primer	**bituprime**
1st Layer waterproofing	**abedex® AT 4 mm**
Slip layer	**bidim®**
Finish	**Pavers on sand layer**

System Specification

Install **abedex®** waterproofing system which includes **abedex® AT 4 mm** with 100 mm side laps and 150 mm end laps, applied to surface primed with **bituprime**. Ensure the surface is laid according to SANS 10400-L requirements. Install the **bidim®** layer before applying pavers on a sand bed.

abedex-paved-parking-200MAL

For paved parking decks surfaces.



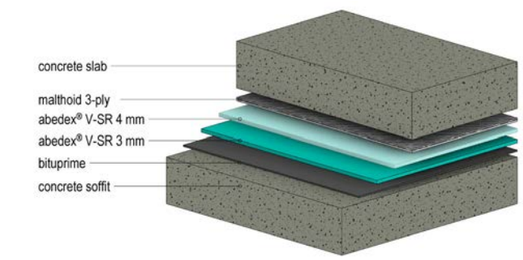
Application	
Primer	**bituprime**
1st Layer waterproofing	**abedex® V-SR 3 mm**
2nd Layer waterproofing	**abedex® V-SR 4 mm**
Slip layer	**bidim®**
Finish	**Pavers on sand layer**

System Specification

Install **abedex®** waterproofing system which includes 1st layer **abedex® V-SR 3 mm**, and 2nd layer **abedex® VS-R 4 mm**, with 100 mm side laps and 150 mm end laps. These layers should be applied to a surface primed with **bituprime**. Ensure the surface is laid according to SANS 10400-L requirements. Install the **bidim®**layer before applying pavers on a sand bed.

abedex-concrete-parking-200VSR

For parking decks with concrete slab overlay.



Application	
Primer	**bituprime**
1st Layer waterproofing	**abedex® V-SR 3 mm**
2nd Layer waterproofing	**abedex® V-SR 4 mm**
Slip layer	**Malthoid 3 ply**
Finish	**Concrete slab**

System Specification

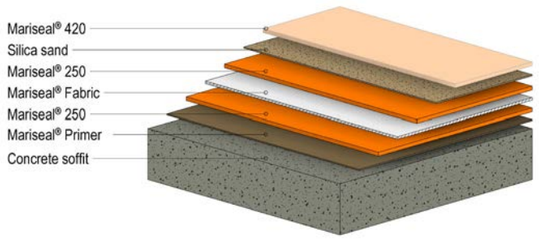
Install **abedex®** waterproofing system which includes 1st layer **abedex® V-SR 3 mm**, and 2nd layer **abedex® V-SR 4 mm**, with 100 mm side laps and 150 mm end laps. These layers should be applied to a surface primed with **bituprime**. Ensure the surface is laid according to SANS 10400-L requirements. Install the **Malthoid 3 ply** before applying pavers on a sand bed.

Liquid applied waterproofing systems

Mariseal® Waterproofing Systems

Mariseal-parking-420

Suitable for parking decks with painted finish.



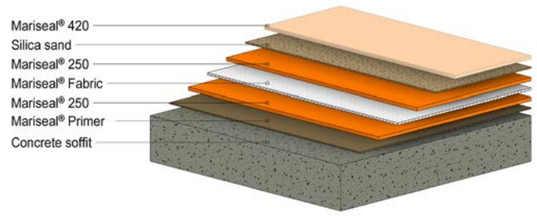
Application	
Primer	**Mariseal® Primer**
1st Layer waterproofing	**Mariseal® 250**
Reinforcing layer	**Mariseal® Fabric 110 gsm**
2nd Layer waterproofing	**Mariseal® 250**
Traction layer	**Silica Sand**
Waterproofing UV protection	**Mariseal® 420**

System Specification

Install the **Mariseal® waterproofing system**, which includes two layers of **Mariseal® 250**, reinforced with **Mariseal® Fabric 110 gsm**, to a surface primed with **Mariseal® Primer**. Ensure the surface is laid in accordance with SANS 10400-L requirements. Finish with one coat of **Mariseal® 420.**

Mariseal-conc-parking

Suitable for parking decks with concrete slab overlay.



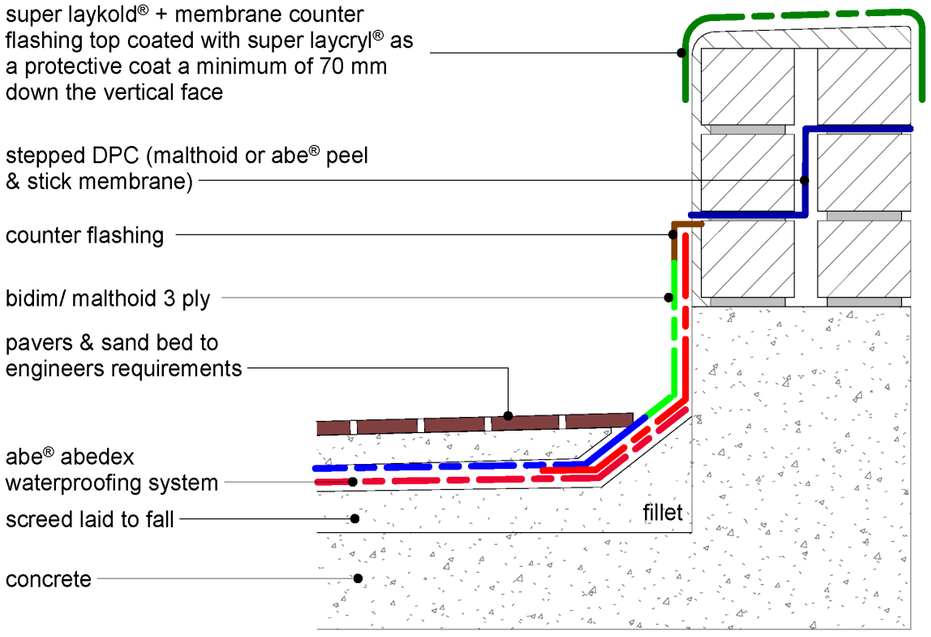
Application	
Primer	**Mariseal® Primer**
1st Layer waterproofing	**Mariseal® 250**
Reinforcing layer	**Mariseal® Fabric 110 gsm**
2nd Layer waterproofing	**Mariseal® 250**
Slip layer	**Malthoid 3 ply**

System Specification

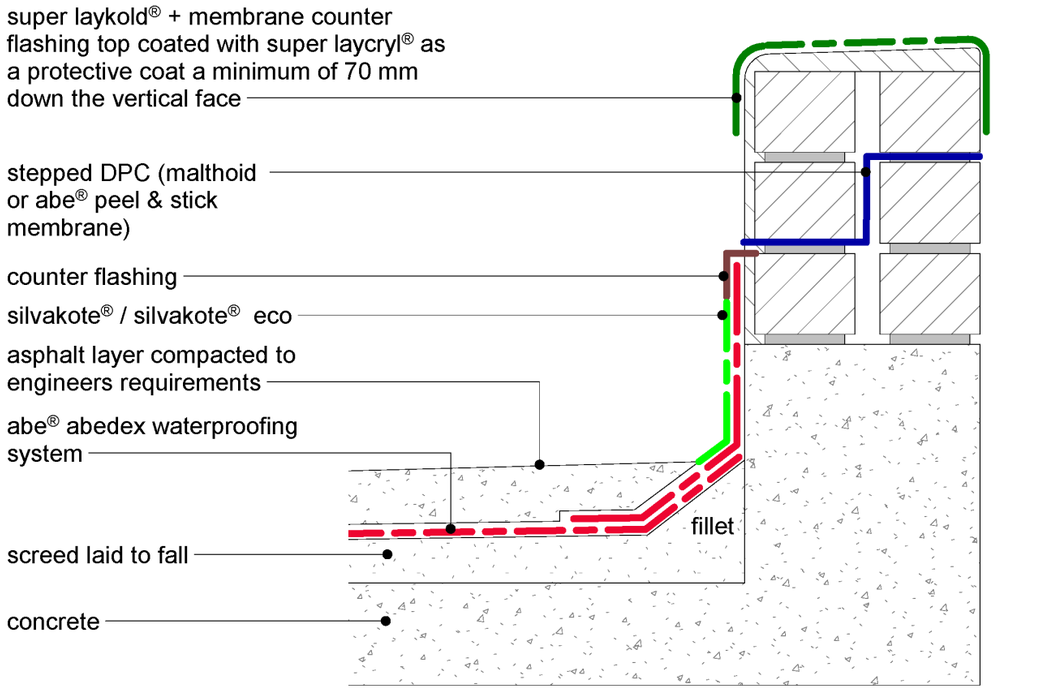
Install the **Mariseal® waterproofing system**, which includes two layers of **Mariseal® 250**, reinforced with **Mariseal® Fabric 110 gsm**, to a surface primed with **Mariseal® Primer**. Install **Malthoid 3 ply** slip layer over the **Mariseal® waterproofing system**. Ensure the surface is laid in accordance with SANS 10400-L requirements. Ensure the surface is laid in accordance with SANS 10400-L requirements. A concrete slab overlay is installed over the **Mariseal® waterproofing system.**

Parking Decks Roof Systems Typical Detailing

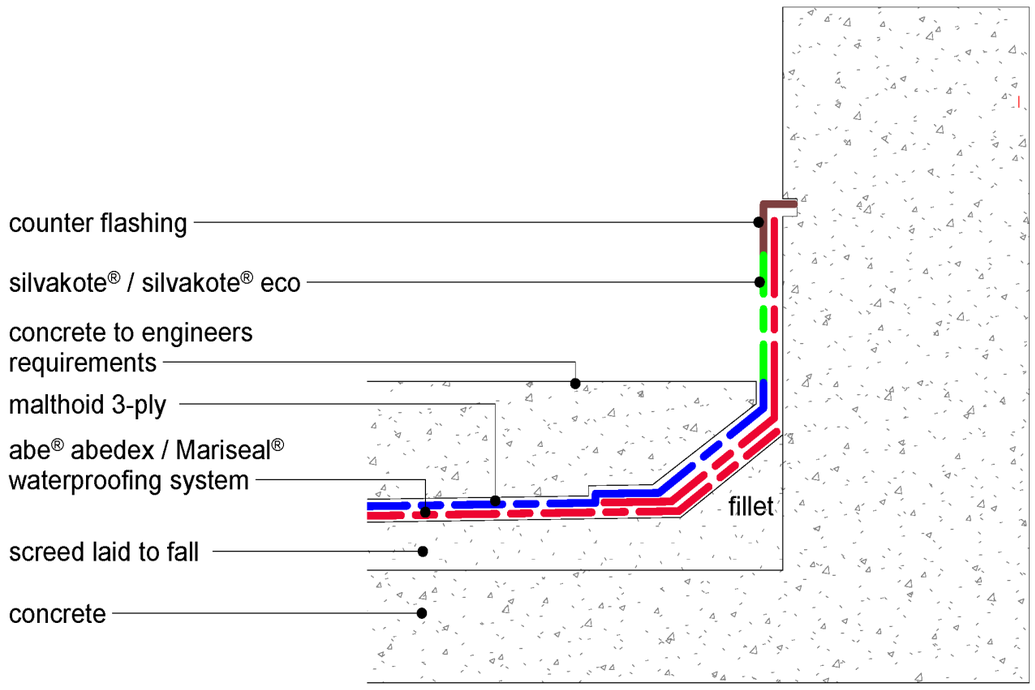
Parking decks pavers detail



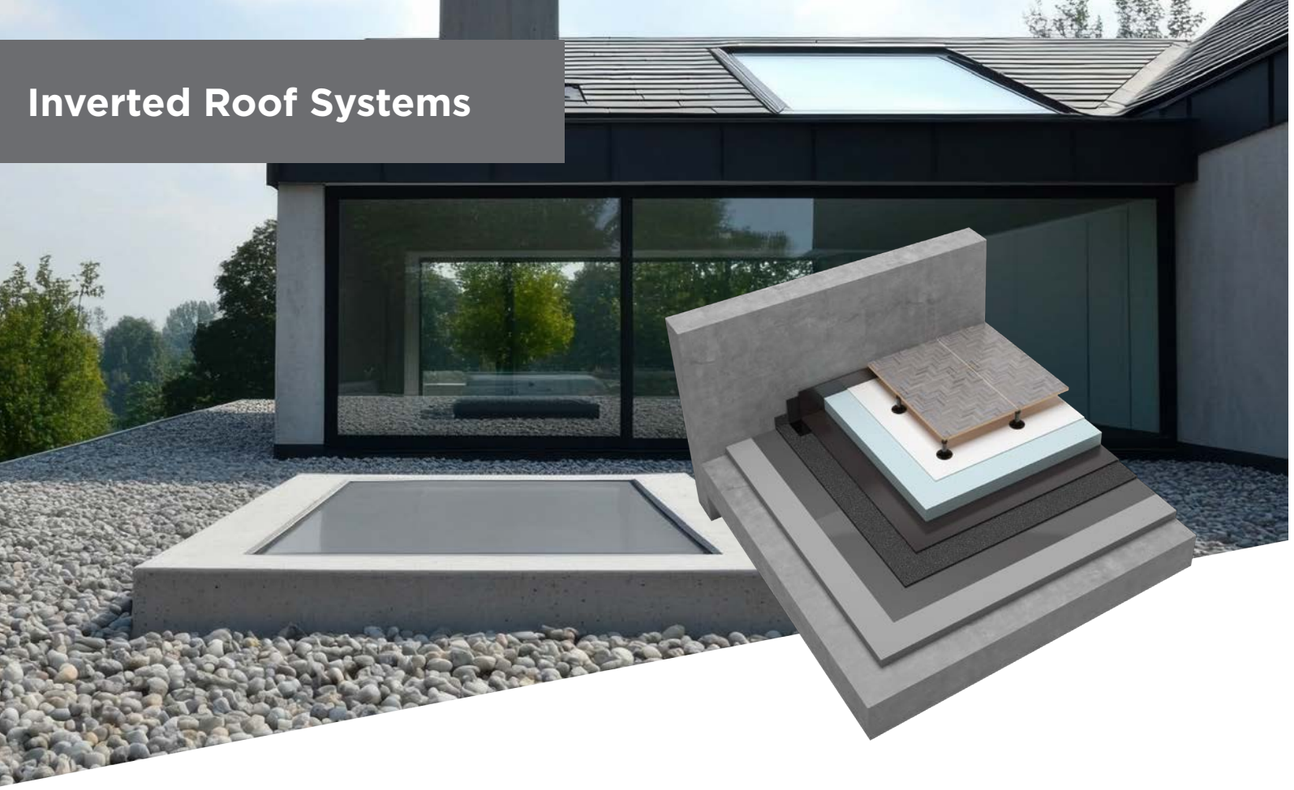
Parking decks asphalt detail



Parking decks concrete detail



Inverted Roof Systems



Inverted roofing system is where the insulation layer is placed above the waterproofing membrane, rather than below it, as in traditional roofing systems. Overall, inverted roofs represent an advanced approach to roofing design, offering enhanced durability, improved thermal performance, and greater flexibility for roof usage. Their ability to protect the waterproofing membrane while providing effective insulation makes them a preferred choice for modern building projects.

Waterproofing under the inverted roofs cannot be easily accessed, therefore for durability purposes, only 2 layer systems should be used.

Concrete surfaces or screeds under the waterproofing layer shall have a fall towards external gutters, outlets or roof edges of not less than 1:80 where there is no interruption in the flow of water, and 1:50 where there is an interruption in the flow. Where two directional falls intersect, the minimum finished fall of 1:80 shall be maintained along the miter. Corner fillets that have horizontal and vertical dimensions of not less than 75 mm shall be provided.

Before application of waterproofing layer. concrete or screed should be clean and sound, free of voids, sharp protrusions or contaminants. The surfaces shall have a light steel trowelled or fine wood float finish. For **abedex systems**, concrete should not contain more than 7 % moisture by weight, and sand-cement or lightweight screeds should not contain more than 10% moisture by weight. For Mariseal systems, concrete and/or screed should not contain more than 5 % moisture.

The roof assembly including the waterproofing, the screed, concrete slab a the requirements of SANS 10400-XA.

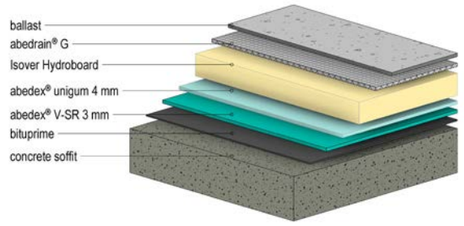
System	Product
Torch-on waterproofing systems	**bituprime**
	abedex® VSR 3 mm
	abedex® unigum 4 mm
	Asphalt
	abedrain® G
	ballast
Liquid applied waterproofing systems	**Mariseal®**
	abeproof liquid membrane primer
	abeproof liquid membrane
	abedrain® G
	ballast
Cold applied waterproofing systems	**Bithuthene Deck Prep**
	Bithuthene 4000
	abedrain®G
	bidim®
	ballast
Roof insulation waterproofing systems	**Isover Hydroboard**

Torch-on waterproofing and drainage systems

a.b.e.® Waterproofing Systems

abedex-inverted-roof-200U

Suitable for roofs subject to maintanace traffic only.



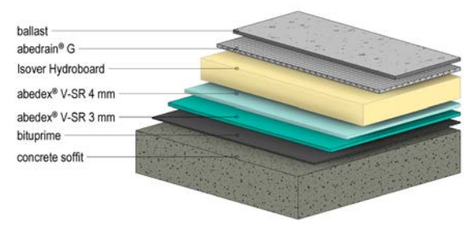
Application	
Primer	**bituprime**
1st Layer waterproofing	**abedex® V-SR 3 mm**
2nd Layer waterproofing	**abedex® unigum 4 mm**
Insulation	**Isover Sagex Hydroboard**
Protection & drainage	**abedrain® G + ballast**

System Specification

Install **abedex® waterproofing system** which includes 1st layer **abedex® V-SR 3 mm** and 2nd layer **abedex® unigum 4 mm**, with 100 mm side laps and 150 mm end laps, on a surface primed with **bituprime**. Ensure the surface is laid according to SANS 10400-L requirements. Install **Isover Sagex Hydroboard** insulation, followed by **abedrain® G** protection and drainage layer. Finish with a 50 mm layer of 19 - 25 mm ballast on the **abedrain® G** separation layer.

abedex-inverted-roof-200VSR

Suitable for roofs subject to maintanace traffic only. Can be used in flat, curved and vertical surfaces.



Application	
Primer	**bituprime**
1st Layer waterproofing	**abedex® V-SR 3 mm**
2nd Layer waterproofing	**abedex® V-SR 4 mm**
Insulation	**Isover Sagex Hydroboard**
Protection & drainage	**abedrain® G + ballast**

System Specification

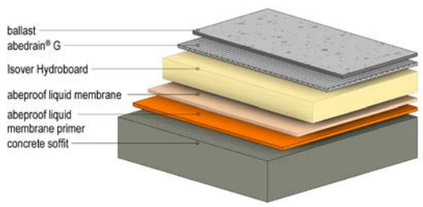
Install **abedex® waterproofing system** which includes 1st layer **abedex® V-SR 3 mm** and 2nd layer **abedex® V-SR 4 mm**, with 100 mm side laps and 150 mm end laps, on a surface primed with **bituprime**. Ensure the surface is laid according to SANS 10400-L requirements. Install **Isover Sagex Hydroboard** insulation, followed by **abedrain® G** protection and drainage layer. Finish with a 50 mm layer of 19 - 25 mm ballast on the **abedrain® G** separation layer.

Liquid applied waterproofing systems

a.b.e.® Waterproofing Systems

abeproof-inverted-roof-100

Suitable for areas that are subject maintenance traffic only.



Application	
Primer	**abeproof liquid membrane primer**
Waterproofing	**abeproof liquid membrane**
Insulation	**Isover Sagex Hydroboard**
Protection & drainage	**abedrain® G + ballast**

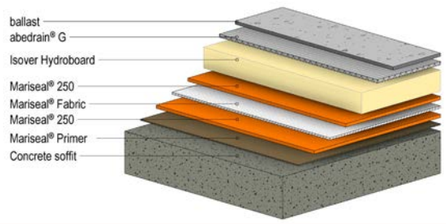
System Specification

Install the **abeproof waterproofing system,** which includes two coats of **abeproof liquid membrane** applied to a surface primed with **abeproof liquid membrane primer**. Ensure the surface is laid according to SANS 10400-L requirements. Finish with a 50 mm layer of 19-25 mm **ballast** on an **abedrain® G** separation layer.

Mariseal® Waterproofing Systems

Mariseal-inverted-roof

Suitable for areas that are subject maintenance traffic only



Application	
Primer	**Mariseal® Primer**
1st Layer waterproofing	**Mariseal® 250**
Reinforcing layer	**Mariseal® Fabric 110 gsm**
2nd Layer waterproofing	**Mariseal® 250**
Insulation	**Isover Sagex Hydroboard**
Protection & drainage	**abedrain® G + ballast**

System Specification

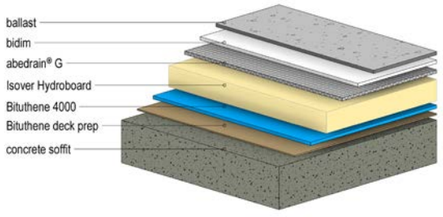
Install the **Mariseal® waterproofing system**, which includes two layers of **Mariseal® 250**, reinforced with **Mariseal® Fabric 110 gsm**, to a surface primed with **Mariseal® Primer**. Ensure the surface is laid according to SANS 10400-L requirements. Finish with a 50 mm layer of 19-25 mm **ballast** on an **abedrain® G** separation layer.

Cold applied waterproofing systems

Chryso® Waterproofing Systems

Bithuthene inv-roof-100

Suitable for extensive garden roof systems.



Application	
Primer	**Bithuthene Deck Prep**
1st Layer waterproofing	**Bithuthene 4000**
Insulation	**Isover Sagex Hydroboard**
Protection & drainage	**abedrain® G**
Protective layer	**ballast**

System Specification

Install the **Chryso® Bithuthene waterproofing system**, which includes one layer of **Chryso® Bithuthene 4000**, applied to a surface primed with **Bithuthene Deck prep**, to a surface laid according to SANS 10400-L requirements. Install **Isover Sagex Hydroboard** insulation. Install **abedrain G** protection and drainage layer. Finish with 50 mm layer of 19-25 mm ballast on the **abedrain® G** separation layer.

SAINT-GOBAIN

Hydroboard is produced from a raw material specifically formulated for water resistance. Combined with a moulded finish without cut surfaces, **Hydroboard** exhibits very low water absorption characteristics.

Hydroboard is a insulation solution for applications such as:

- Insulation of surface beds and perimeter walls
- Flat/ inverted roof insulation above waterproofing (protected membrane)
- Cavity wall insulation in masonry walls, void formers and refrigeration panels

Key Benefits

- High compressive strength (compared to standard EPS)
- Low water absorption and vapour permeability values
- Cost effective
- Great thermal properties
- High impact resistance

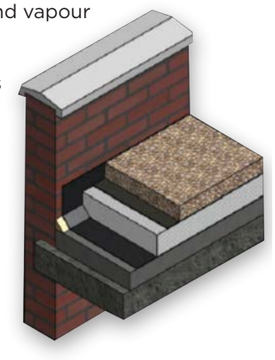
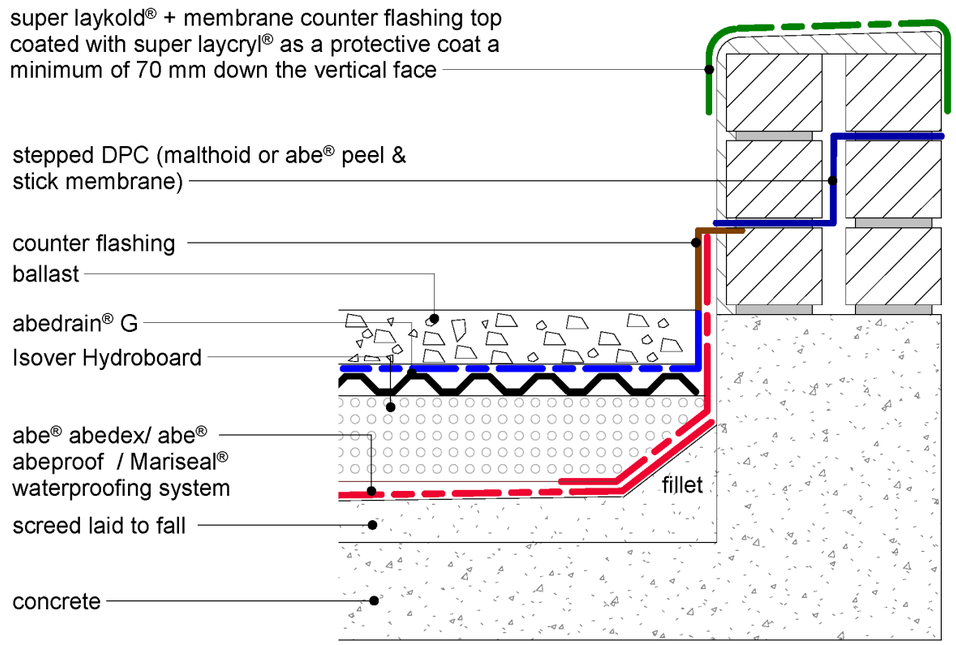


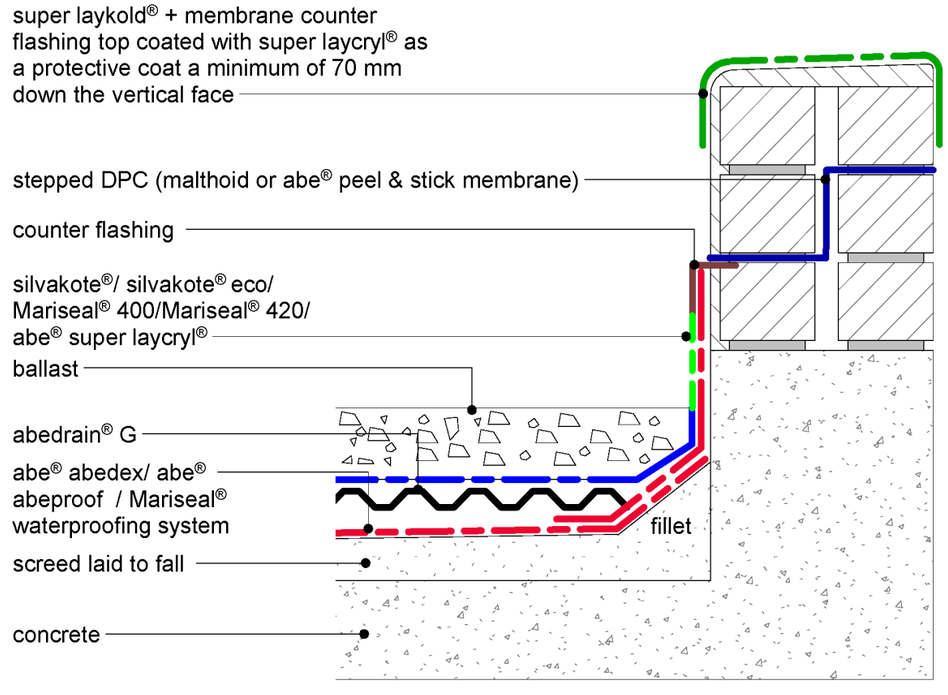
Diagram: Inverted roof Insulation **Isover Sagex Hydroboard**

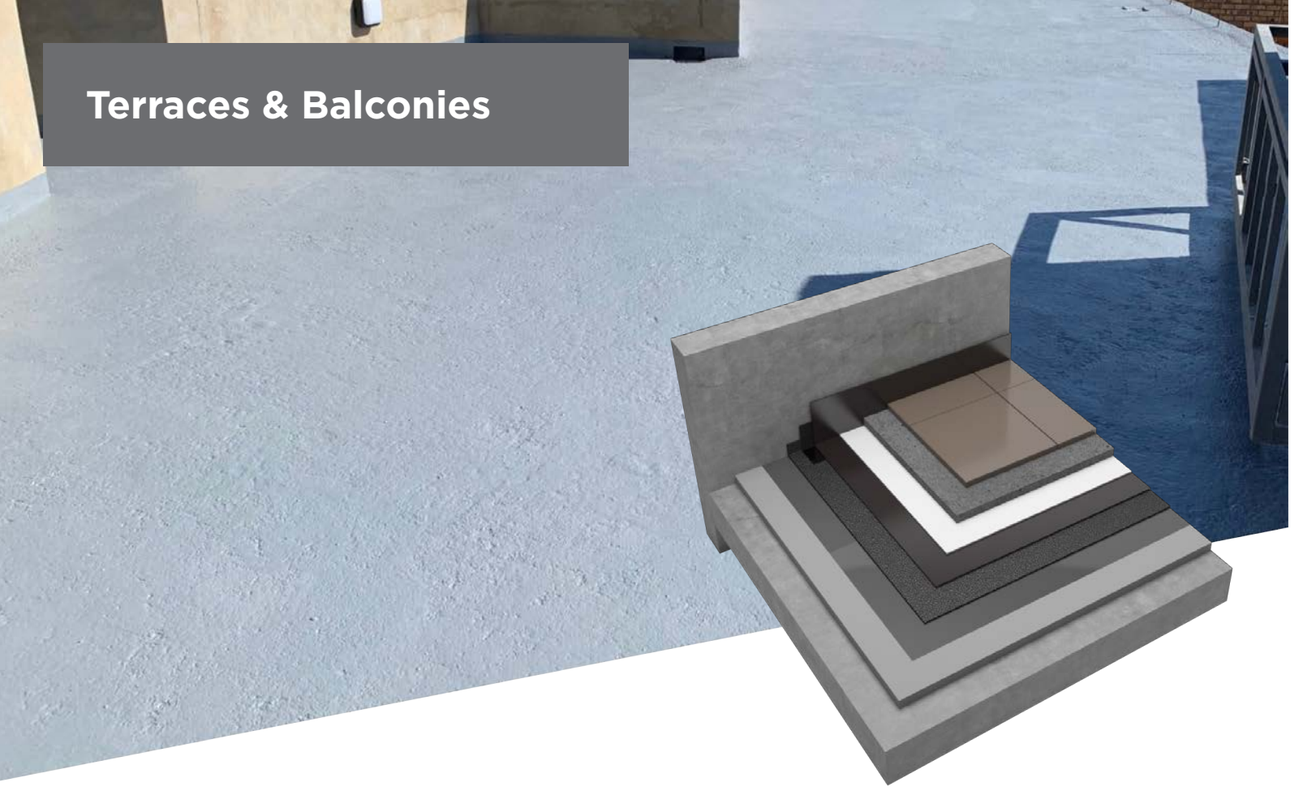
Inverted Roof Systems Typical Detailing

Inverted roof typical detail 1



Inverted roof typical detail 2





Terraces & Balconies

Terraces and balconies are outdoor spaces extending from a building, offering elevated access to the outdoors. A balcony is a small, elevated platform projecting from a building's wall, typically enclosed by a railing, and usually attached to a single room or apartment.

Waterproofing terraces and balconies is essential to prevent water ingress, which can lead to steel oxidation and structural weakening, as well as interior damage.

Concrete surfaces on balconies and terraces should be screeded to the required fall per SANS 10400-L. They should have a fall towards external gutters, outlets, or roof edges of at least 1:80 without water flow interruption, and 1:50 with interruption. Where two directional falls intersect, maintain a minimum
finished fall of 1:80 along the mitre, with adequately sized corner fillets.

For abedex systems, Concrete should not contain more than 7 % moisture by weight, and sand-cement or lightweight screeds should not contain more than 10% moisture by weight. For **Mariseal systems** concrete and/or screed should not contain more than 5 % moisture.

The terrace assembly over livable space, including waterproofing, screed, concrete slab, and ceiling, must meet SANS 10400-XA requirements. For lightweight screeds, apply a 20 mm thick sand-cement screed on top to receive waterproofing. If using foam insulation, lay a reinforced screed over the insulation material.

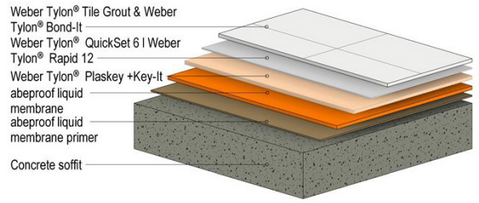
Systems	Product
Liquid applied waterproofing systems	**abeproof liquid membrane primer**
	abeproof liquid membrane
	abeproof PU eco
	Mariseal®
Cementitious waterproofing systems	**duraflex®**
	abe® peel & stick membrane
Tile primers & additives Tile Adhesives Tile Grout	**Weber Tylon® Tile Plaskey**
	Weber Tylon® Tile Key-it
	Weber Tylon® QuickSet 6
	Weber Tylon® Rapid 12
	Weber Tylon® Grout
	Weber Tylon® Bond-it

Liquid applied waterproofing systems

a.b.e.® Waterproofing Systems

abeproof-balcony-100

Suitable for tile surfaces.



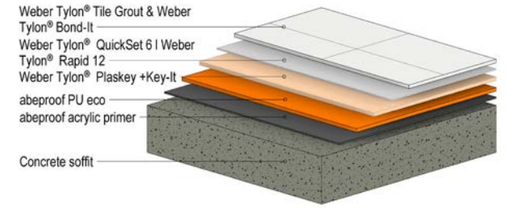
Application	
Primer	**abeproof liquid membrane primer**
Waterproofing	**abeproof liquid membrane**
Tile primer	**Weber Tylon® Tile Plaskey & Key-it**
TIle adhesive	**Weber QuickSet 6 | Rapid 12**
Finish	**Weber Tylon® Tile Grout & Bond-it**

System Specification

Install the **abeproof waterproofing system,** which includes two coats of **abeproof liquid membrane** applied to a surface primed with **abeproof liquid membrane primer**. Ensure the surface is laid according to SANS 10400-L requirements. Adhere tiles to the waterproofing layer using **Weber Tylon® QuickSet 6 or Rapid 12** mixed with **Weber Tylon® Plaskey & Key-it**. Finish the tile joints with **Weber Tylon® Tile Grout** mixed with **Weber Tylon® Bond-it**.

abeproof-PU-balcony-100

Suitable for areas that are subject maintenance traffic only.



Application	
Primer	**abeproof acrylic primer**
Waterproofing	**abeproof PU eco**
Tile primer	**Weber Tylon® Tile Plaskey & Key-it**
TIle adhesive	**Weber QuickSet 6 | Rapid 12**
Finish	**Weber Tylon® Tile Grout & Bond-it**

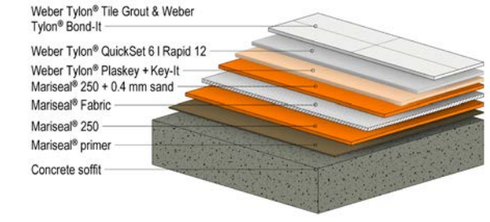
System Specification

Install **abeproof waterproofing system** consisting of 2 coats of **abeproof PU Eco** applied to a surface primed with **abeproof acrylic primer,** surface laid to fall as per SANS 10400-L requirements. Adhere tiles to the waterproofing layer using **Weber Tylon® QuickSet 6 or Rapid 12** mixed with **Weber Tylon® Plaskey & Key-it**. Finish the tile joints with **Weber Tylon® Tile Grout** mixed with **Weber Tylon® Bond-it**.

Mariseal® Waterproofing Systems

Mariseal-balcony

Suitable for tile surfaces.



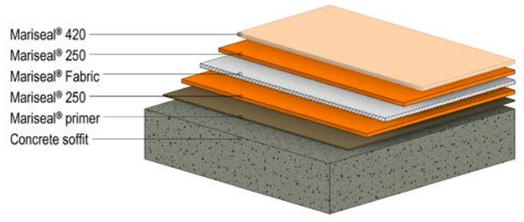
Application	
Primer	**Mariseal® Primer**
1st Layer waterproofing	**Mariseal® 250**
Reinforcing layer	**Mariseal® Fabric 110 gsm**
2nd Layer waterproofing	**Mariseal® 250 Plus 0.4 mm sand**
TIle adhesive	**Weber Tylon® QuickSet 6 | Rapid 12**
Finish	**Weber Tylon® Grout & Bond-it**

System Specification

Install the **Mariseal® waterproofing system**, which includes two layers of **Mariseal® 250**, reinforced with **Mariseal® Fabric**, to a surface primed with **Mariseal® Primer**. Ensure the surface is laid according to SANS 10400-L requirements. Sprinkle 0.4 mm-0.5 mm sand onto the second **Mariseal® 250** layer before it dries. Adhere tiles to the waterproofing layer using **Weber Tylon® QuickSet 6 or Rapid 12.** Finish the tile joints with **Weber Tylon® Tile Grout** mixed with **Weber Tylon® Bond-it**.

Mariseal-balcony-420

Suitable for paint surfaces.



Application	
Primer	**Mariseal® Primer**
1st Layer waterproofing	**Mariseal® 250**
Reinforcing layer	**Mariseal® Fabric 110 gsm**
2nd Layer waterproofing	**Mariseal® 250 Plus 0.4 mm sand**
Finish	**Mariseal® 420**

System Specification

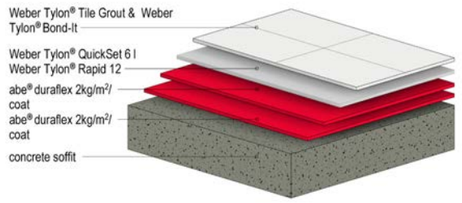
Install the **Mariseal® waterproofing system**, which includes two layers of **Mariseal® 250**, reinforced with **Mariseal® Fabric 110 gsm**, to a surface primed with **Mariseal® Primer**. Ensure the surface is laid according to SANS 10400-L requirements. Finish with one coat of **Mariseal® 420**.

Cementitious waterproofing systems

a.b.e.® Waterproofing Systems

duraflex-balcony-200

Suitable for small balconies with tile finish.



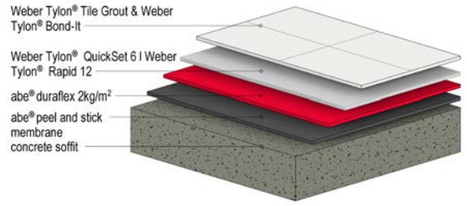
Application	
1st Layer waterproofing	**duraflex®** 2 kg/m²/coat
2nd Layer waterproofing	**duraflex®** 2 kg/m²/coat
TIle adhesive	**Weber Tylon® QuickSet 6 | Rapid 12**
Finish	**Weber Tylon® Tile Grout & Bond-it**

System Specification

Install the **duraflex® waterproofing system**, which includes one layer of **duraflex®**, at a rate of 2 kg/m², to a surface laid according to SANS 10400-L requirements. Adhere tiles to the waterproofing layer using **Weber Tylon® QuickSet 6 or Rapid 12.** Finish the tile joints with **Weber Tylon® Tile Grout** mixed with **Weber Tylon® Bond-it**.

duraflex-balcony-200PS

Suitable for small balconies with tile finish.



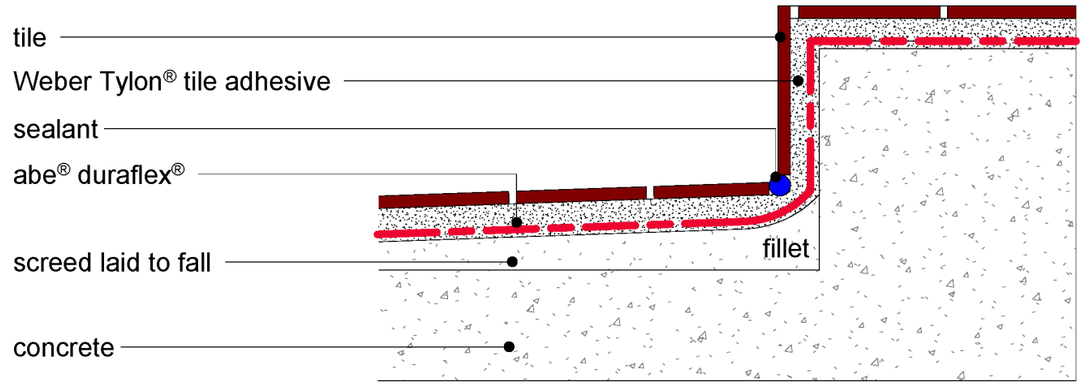
Application	
Primer	**bituprime**
1st Layer waterproofing	**abe® peel & stick membrane**
2nd Layer waterproofing	**duraflex®** 2 kg/m²/coat
TIle adhesive	**Weber Tylon® QuickSet 6 | Rapid 12**
Finish	**Weber Tylon® Tile grout & Bond-it**

System Specification

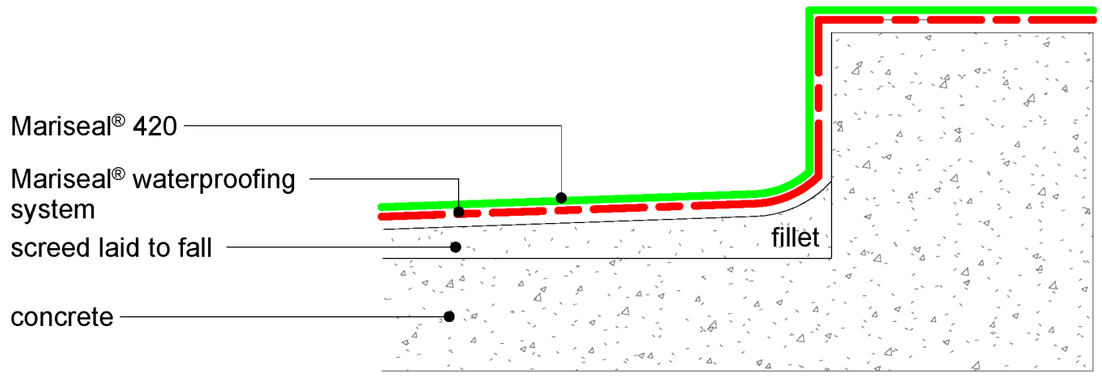
Install the **duraflex® waterproofing system**, which includes one layer of **abe® peel & stick membrane** onto a surface primed with **bituprime**, followed by a second layer of **duraflex®**, each applied at a rate of 2 kg/m², to a surface according to SANS 10400-L requirements. Adhere tiles to the waterproofing layer using **Weber Tylon® QuickSet 6 or Rapid 12.** Finish the tile joints with **Weber Tylon® Tile Grout** mixed with **Weber Tylon® Bond-it**.

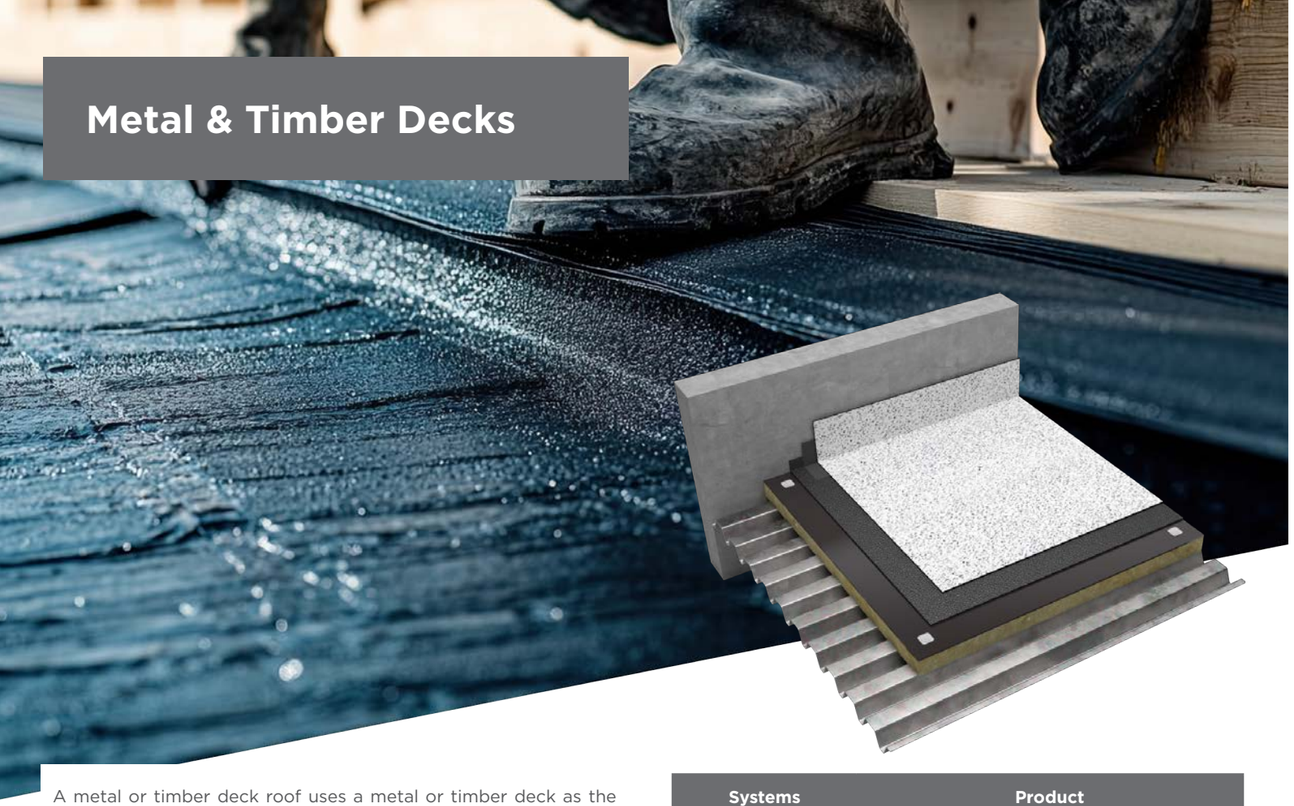
Terraces and Balconies Typical Detailing

Timber deck typical detail 2 a.b.e.®



Timber deck typical detail 2 Mariseal®





Metal & Timber Decks

A metal or timber deck roof uses a metal or timber deck as the primary structural component, supporting roofing materials and enhancing the building's strength and stability. These roofs are popular in commercial, industrial, and some residential buildings due to their durability, versatility, and ease of installation.

Metal or timber decks are supported by a lightweight steel or timber framework. Lightweight screed or insulation is typically added above the deck to improve energy efficiency. For insulation under the roof deck, a screed is laid on the metal deck, while waterproofing can be applied directly on the timber deck. Insulation above the deck is covered with a reinforced screed or timber boards, followed by a waterproofing membrane. A vapor barrier may be installed under the decking to prevent condensation.

Metal decks can be constructed with a fall or created using a reinforced screed. The roof or screed should have a fall towards external gutters, outlets, or roof edges of at least 1:80 without water flow interruption, and 1:50 with interruption. Where two directional falls intersect, maintain a minimum finished fall of 1:80 along the mitre, with corner fillets of at least 75 mm along parapets or edges.

Screeded surfaces should have a light steel trowelled or fine wood float finish and be left to dry before applying any waterproofing system. For **abedex systems**, sand-cement screeds or lightweight screeds should not contain more than 10 % moisture by weight. For **Mariseal systems**, sand-cement screeds or lightweight screed should not contain more than 5 % moisture content.

This section exclusively addresses screeded metal clad roofs that conform to the SANS 10400-L definition of flat roofs, excluding shallow pitch metal clad roofs, which are erroneously referred to as flat roofs in the market. For solutions on shallow pitch metal roofs, please refer to the **a.b.e.®** website.

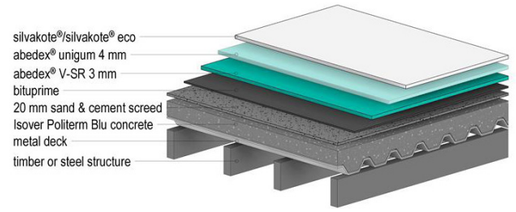
Systems	Product
Torch-on waterproofing systems	**bituprime**
	abedex® V-SR 3 mm
	silvakote®
	silvakote® eco
	abedex® V-SR 3 mm
	abedex® unigum 4 mm
	abedex® unigum MS
	abedex® HM
	malhoid 5 ply
	abedrain® G + ballast
Liquid applied waterproofing systems	**abeproof liquid membrane primer**
	abeproof liquid membrane
	abeproof PU eco
	silvakote®
	silvakote® eco
	super laycryl®
	super laykold®
	4 metal DTM
	Mariseal®
Roof insulation waterproofing systems	**Isover Politerm Blue**

Torch-on waterproofing and drainage systems

a.b.e.® Waterproofing Systems

abedex-metal-silva-200U

For screeded metal decks.



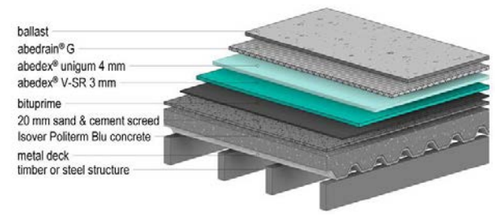
Application	
Primer	**bituprime**
1st Layer waterproofing	**abedex® V-SR 3 mm**
2nd Layer waterproofing	**abedex® unigum 4 mm**
Waterproofing UV protection	**silvakote® | silvakote® eco**

System Specification

Install **abedex®** waterproofing system which includes 1st layer **abedex® V-SR 3 mm** and 2nd layer **abedex® unigum 4 mm**, with 100 mm side laps and 150 mm end laps, on a surface primed with **bituprime**. Surface consisting of Polyterm Blu insulated screed with a minimum 20 mm sand-cement screed topping. Ensure the surface is laid according to SANS 10400-L requirements. Finish with two coats of **silvakote® / silvakote® eco.**

abedex-metal-ballast-200U

For screeded metal decks.



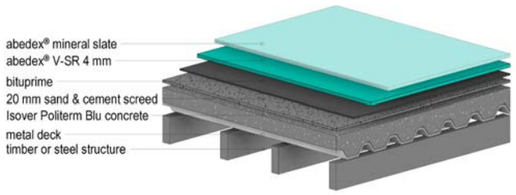
Application	
Primer	**bituprime**
1st Layer waterproofing	**abedex® V-SR 3 mm**
2nd Layer waterproofing	**abedex® unigum 4 mm**
Protection & drainage	**abedrain® G + ballast**

System Specification

Install **abedex®** waterproofing system which includes 1st layer **abedex® V-SR 3 mm** and a 2nd layer of **abedex® unigum 4 mm** with 100 mm side laps and 150 mm end laps, applied to a surface primed with **bituprime**. Surface consisting of Polyterm Blu insulated screed with a minimum 20 mm sand-cement screed topping. Ensure the surface is laid according to SANS 10400-L requirements. Install **abedrain® G** protection and drainage layer.

abedex-metal-mineral-200

For screeded metal decks.



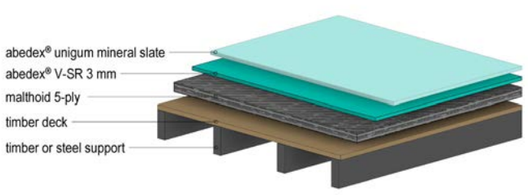
Application	
Primer	**bituprime**
1st Layer waterproofing	**abedex® V-SR 4 mm**
2nd Layer waterproofing	**abedex® unigum MS**

System Specification

Install **abedex®** waterproofing system which includes one layer **abedex® V-SR 4 mm** and second layer **abedex® unigum MS**, with 100 mm side laps and 150 mm end laps, on a surface primed with **bituprime**. Surface consisting of Polyterm Blu insulated screed with a minimum 20 mm sand-cement screed topping. Ensure the surface is laid according to SANS 10400-L requirements.

abedex-timber-mineral-300

For timber boarded surface.



Application	
1st Layer waterproofing	**malthoid 5 ply**
2nd Layer waterproofing	**abedex® V-SR 3 mm**
3rd Layer waterproofing	**abedex® unigum MS**

System Specification

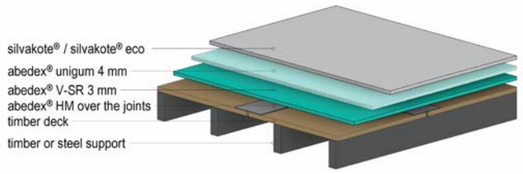
Install **abedex®** waterproofing system which includes one layer **malthoid 5 ply**, second layer **abedex® VD-R 3 mm** and thrid layer **abedex® unigum MS** with 100 mm side laps and 150 mm end laps, applied to a timber deck surface. Ensure the surface is laid according to SANS 10400-L requirements.

Torch-on waterproofing systems

a.b.e.® Waterproofing Systems

abedex-timber-silva-300-VSR

For timber boarded surface.



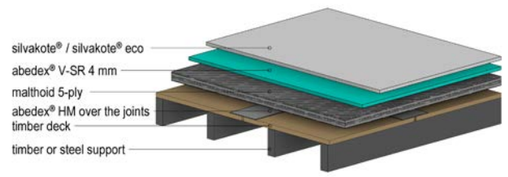
Application	
1st Layer waterproofing	**abedex® HM**
2nd Layer waterproofing	**malhoid 5 ply**
3rd Layer waterproofing	**abedex® V-SR 4 mm**
Waterproofing UV protection	**silvakote® | silvakote® eco**

System Specification

Install **abedex®** waterproofing system which includes the 1st layer of 200mm wide **abedex® HM** applied to all the timber deck joints, 2nd layer **malthoid 5 ply** and 3rd layer **abedex® V-SR 4 mm**, with 100 mm side laps and 150 mm end laps applied to a timber deck surface. Ensure the surface is laid according to SANS 10400-L requirements. Finish with two coats of **silvakote® / silvakote® eco.**

abedex-timber-silva-300-UNI

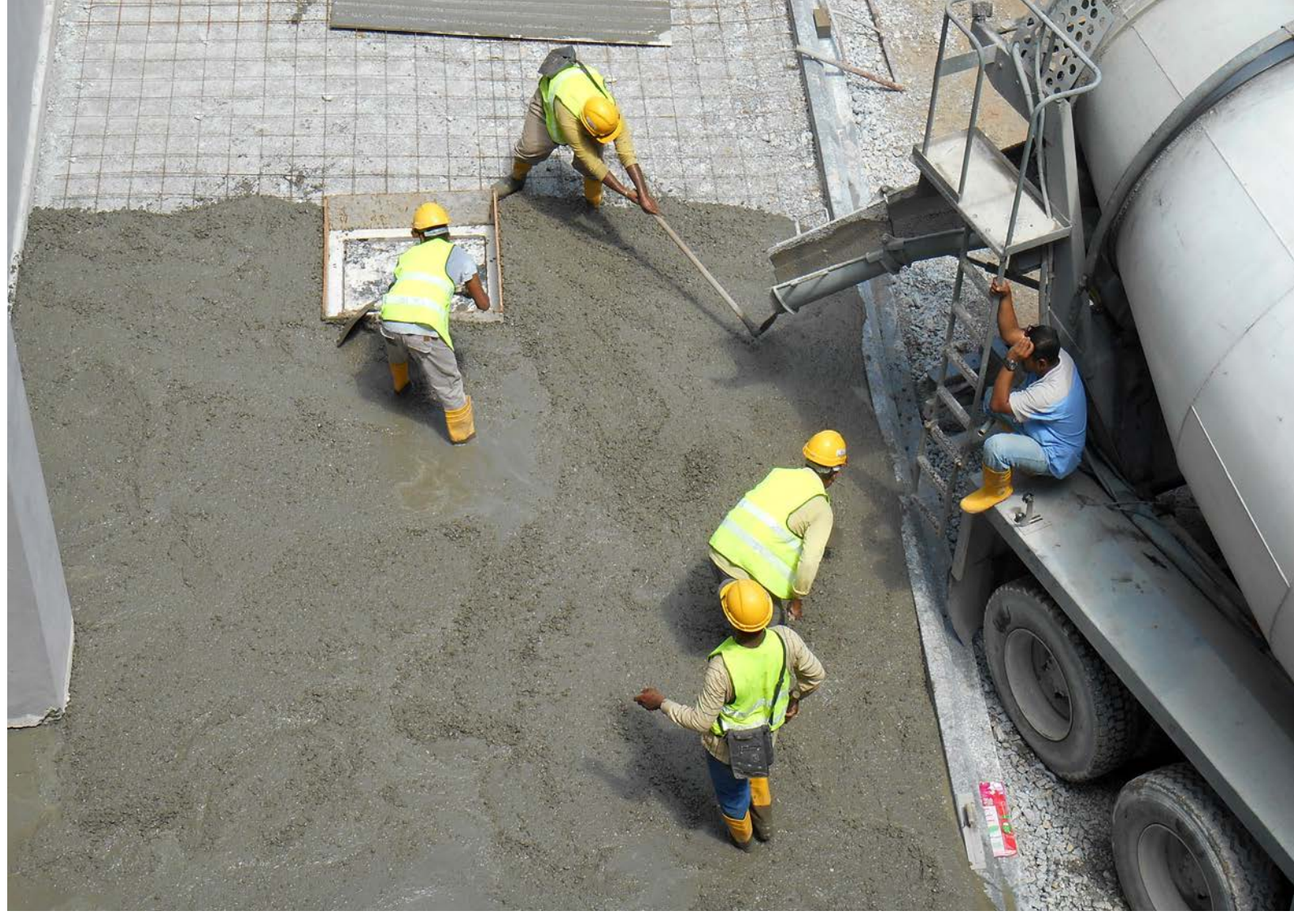
For timber boarded surface.



Application	
1st Layer waterproofing	**abedex® HM**
2nd Layer waterproofing	**abedex® V-SR 3 mm**
3rd Layer waterproofing	**abedex® unigum 4 mm**
Waterproofing UV protection	**silvakote® | silvakote® eco**

System Specification

Install **abedex®** waterproofing system which includes the 1st layer of 200mm wide a**abedex® HM** applied to all the timber deck joints, 2nd layer **abedex® V-SR 3 mm** and 3rd layer **abedex® unigum 4 mm**, with 100 mm side laps and 150 mm end laps applied to a timber deck surface. Ensure the surface is laid according to SANS 10400-L requirements. Finish with two coats of **silvakote® /silvakote® eco.**

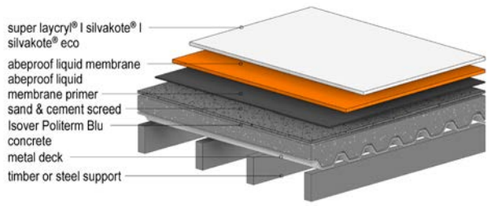


Liquid applied waterproofing systems

a.b.e.® Waterproofing Systems

abeproof-metal-liq-100

For screeded metal decks



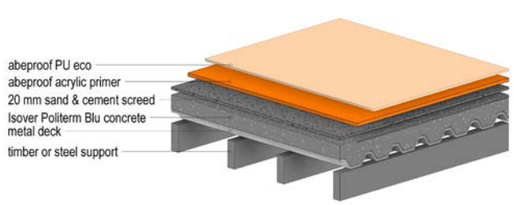
Application	
Primer	**abeproof liquid membrane primer**
Waterproofing	**abeproof liquid membrane**
Waterproofing UV protection	**silvakote® | silvakote® eco super laycryl®**

System Specification

Install the **abeproof waterproofing system,** which includes two coats of **abeproof liquid membrane** applied to a surface primed with **abeproof liquid membrane primer**. Surface consisting of Polyterm Blu insulated screed with a minimum 20 mm sand-cement screed topping. Ensure the surface is laid according to SANS 10400-L requirements. Finish with two coats of **silvakote® /silvakote® eco** or **super laycryl®.**

abeproof-metal-PU-100

For screeded metal decks



Application	
Primer	**abeproof acrylic primer**
Waterproofing	**abeproof PU eco**

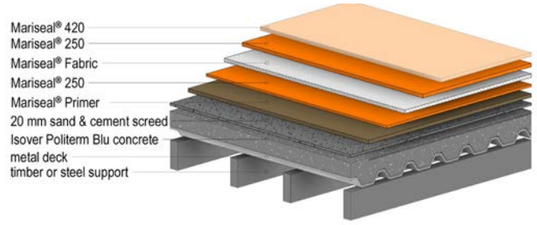
System Specification

Install the **abeproof waterproofing system,** which includes two coats of **abeproof PU eco** applied to a oil free surface primed with **abeproof acrylic primer**. Surface consisting of Polyterm Blu insulated screed with a minimum 20 mm sand-cement screed topping. Ensure the surface is laid according to SANS 10400-L requirements.

Maris® Waterproofing System

Mariseal-metal-420

Suitable for paint surfaces.



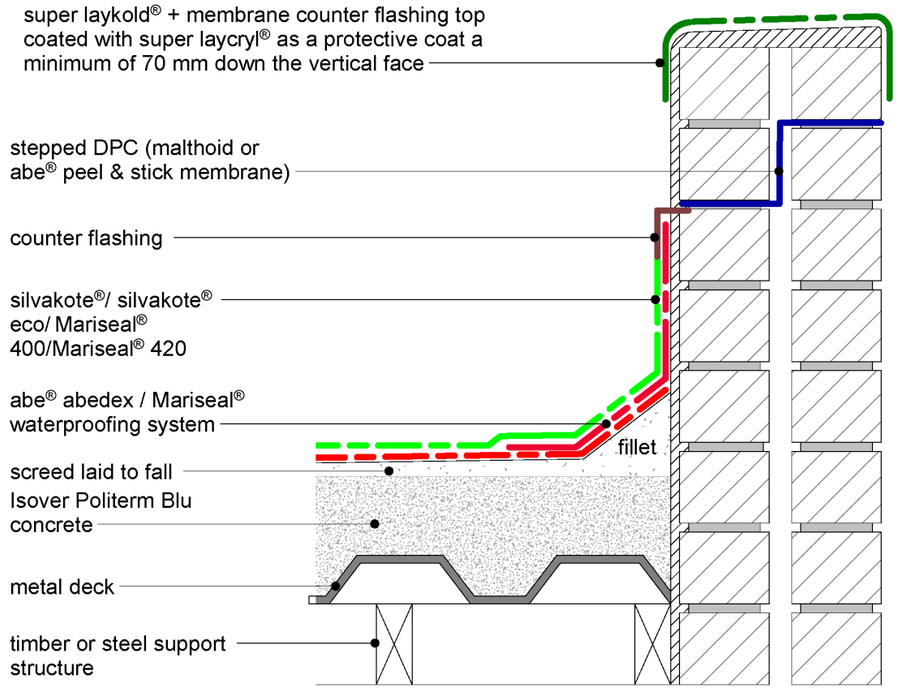
Application	
Primer	**Mariseal® Primer**
1st Layer waterproofing	**Mariseal® 250**
Reinforcing layer	**Mariseal® Fabric 110 gsm**
2nd Layer waterproofing	**Mariseal® 250 Plus 0.4 mm sand**
Finish	**Mariseal® 420**

System Specification

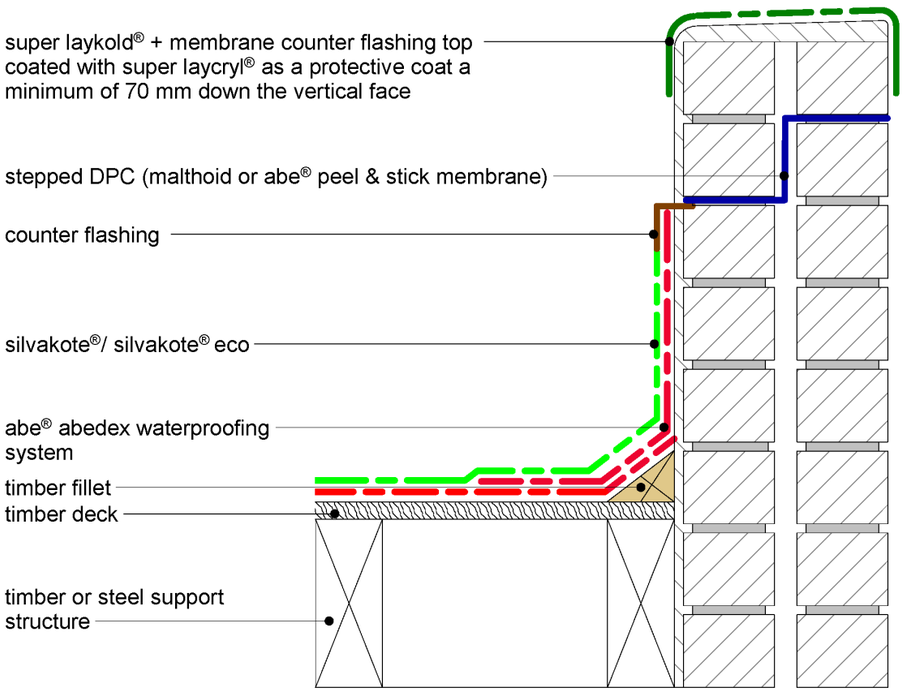
Install the **Mariseal® waterproofing system**, which includes two layers of **Mariseal® 250**, reinforced with **Mariseal® Fabric 110 gsm**, to a surface primed with **Mariseal® Primer**. Surface consisting of Polyterm Blu insulated screed with a minimum 20 mm sand-cement screed topping. Ensure the surface is laid according to SANS 10400-L requirements. Finish with two coats of **Mariseal® 420**.

Metal & Timber Decks Typical Detailing

Metal deck detail 1



Timber deck typical detail 1

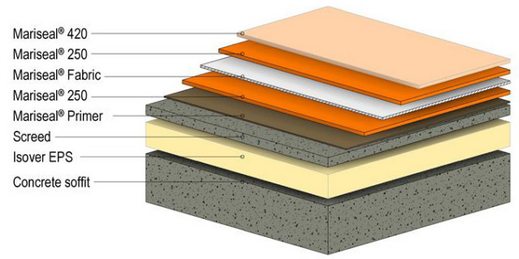


Roof insulation waterproofing systems

Isover Insulation Systems

Overslab Insulation

Screed roof double layer waterproofing onto the concrete slab.



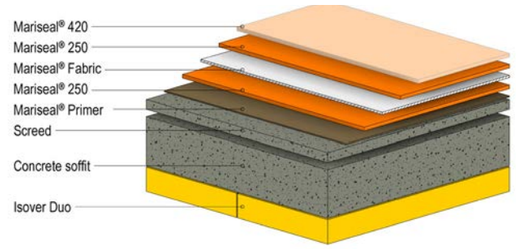
Insulation Type	**Isover Sagex EPS**

System Specification

Install **Isover Sagex EPS** onto the concrete slab and cover with screed. Determine the thickness of the insulation according to SANS 10400-XA requirements

Underslab Insulation

Screed roof double layer waterproofing underneath the concrete slab.



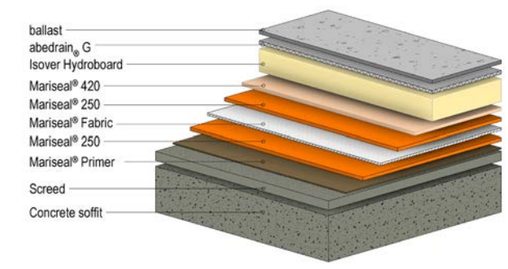
Insulation Type	**Isover Duo**

System Specification

Isover Duo insulation should be installed underneath the concrete slab. The insulation thickness must comply with the SANS 10400-XA requirements.

Inverted Roof Insulation

Screed roof double layer onto new or exisitng waterproofing system.



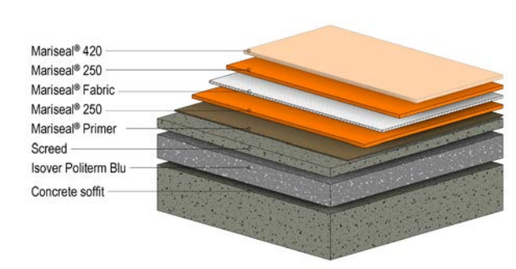
Insulation Type	**Isover Hydroboard**

System Specification

Isover Sagex EPS should be installed onto new or existing waterproofing system.The insulation thickness must comply with the SANS 10400-XA requirements. **bidim®** is laid over **Isover Sagex Hydroboard** and covered with ballast to prevent wind uplift.

Lightweight Screed insulation

Screed roof double layer onto new or existing waterproofing system.



Insulation Type	**Isover Politerm Blu**

System Specification

Isover Politerm Blu should be installed onto the concrete slab. 20 mm SANS cement protective screed shall be installed onto the **Politerm Blu** before the application of the **a.b.e.®** waterproofing system. The insulation thickness must comply with the SANS 10400-XA requirements.

SAINT-GOBAIN

SAINT-GOBAIN

abe.co.za
0860 223 773

maris
SAINT-GOBAIN

https://www.abe.co.za/maris-waterproofing-protecting-systems/
0860 223 773

isover
SAINT-GOBAIN

isover.co.za
0860 476 837

weber
SAINT-GOBAIN

za.weber
0860 272 829

chryso
SAINT-GOBAIN

chryso.com
011 395 9700

FLAT ROOF SOLUTIONS