PENTENS SA-100

Self-Adhesive Waterproofing Membrane

Product Data Sheet

Description

PENTENS SA-100 is a tough, pliable, self-adhering membrane sheet made of a high strength engineered film and a thick layer of rubberised asphalt forming a dual waterproofing barrier.

PENTENS SA-100 adheres tenaciously to the substrate, eliminating the trapping of water beneath, and providing an impervious water barrier above.

Uses

- Basements
- Lift pits
- Tunnels
- Car parks
- Planters
- Balconies
- Roof decks
- Plant rooms
- Plazas
- Roads

Advantages

- Self-adhesive: PENTENS SA-100 laminates totally and permanently to the substrate, preventing the spread of water beneath membrane.
- Flexibility: PENTENS SA-100 will not become embrittled with age. It will bridge shrinkage cracks and accommodate continued movement.
- Cold applied: PENTENS SA-100 can be easily applied without any heat or chemical bonding agents.
- Self-sealing: The adhesive self-seals small punctures.
- Uniform thickness: Factory controlled thickness of the membrane is constant throughout. It is not subject to variations on site.
- Self-jointing: PENTENS SA-100 laps are easily pressed together to give a permanent watertight seal with no taping or welding.

Technical & Physical Data

Thickness (mm)	1.5
Tensile Strength Membrane (psi)(ASTM D 412)	500
Water Absorption (%)	0.14 @24 hrs
Permeance (grains/sq ft/hr/in/Hg) ASTM E 96 Method B	0.0004
Puncture Resistant (N) (ASTM E 154)	220
Softening Point (ºC) (ASTM D 36)	100
Peel Adhesion kN/width Dry Wet	 1.40 1.44
Pliability (180 bend with over 25mm mandrel at – 32°C) (ASTM D 146 Sec. 13.1)	Unaffected
Fatigue Cycling Over Crack at 26°C (100 cycles)	Unaffected
Adhesion Strength (N/mm²) Primed Surface Self	(ASTM D 1000) 2.0 2.4
Hydrostatic Water Pressure (BS EN 12390)	>50m (5bar)
Elongation-Ultimate Failure of Rubberized Asphalt (%) (ASTM D 412)	540
Exposure to Fungi In Soil (16 weeks) (GSA-PBS 7111)	Unaffected
Tear Strength (N/mm²) (ASTM D 1004)	130
Chemical Resistance (ASTM D 543)	pH 2.5 – 11.5
Crack Bridging Ability (ASTM C 836)	> 1mm
Shelf Life	1 year if stored as per recommendation
Storage Condition	Store in a dry, cool place.

Notes

The material must be stored indoor to avoid being exposed to direct sunlight, wind or rain.

Disclaimer. All representations and recommendations set forth are given in good faith and to the best of our knowledge. However due to varying conditions and applications, the buyer shall conduct its own tests of this product before use. Under no circumstances will the manufacturer be liable for any loss or damages caused by incorrect usages. The sale of this product shall be on terms and conditions set forth on Pentens order acknowledgement.

Application Instruction

The application temperature should be between 4ºC to 45ºC. Application procedures may vary slightly depending on site conditions.

Surface Preparation

The surface shall be cleaned thoroughly from all contaminants like dust, traces of curing compound, oil and grease. All surface imperfections, protrusions, structurally unsound and friable concrete must be removed and repaired with suitable concrete repair mortar.

Priming

Apply Pentens T-101 water-based bituminous coating @ 0.2kg/m² to a clean, smooth and dry surface by brush, roller or spray. Allow the primer to cure prior to the application of the membrane. The primer promotes good adhesion between the membrane and the substrate as the primer acts as a binder for the dust which may be accumulated on the surface again even after cleaning.

Alignment

Start the installation of all membrane plies from the lowest point or drains, so that the flow of water is over or parallel to the plies, but never against the laps. All overlaps on the membrane seams shall be installed to achieve upslope laps over downslope laps. Begin membrane application by unrolling the roll of PENTENS SA-100 membranes and aligning it to the side laps.

Application

Peel off the release film from the self-adhesive side and start unrolling the membrane and press it onto the surface. Smoothing the membrane from the center to the edges with a wooden press in order to remove any entrapped air. Furthermore, an iron roller shall be used for rolling on top of the applied membrane to ensure a proper and strong adhesion of the bitumen compound with the base surface. Side laps should leave a minimum of 50mm space on the selvedge and 100mm for the end of overlaps.

Protection

The membrane shall be protected from damage due to ongoing site activities or from aggregates during backfilling by a tough, weather, warp and rot proof protection board. Alternatively, the membrane can also be protected by laying a cement screed (50mm) on a horizontal surface.

Handling

PENTENS SA-100 is supplied in rolls of 1m x 20m. The rolls are packed in loose corrugated boxes to avoid any damage during transit or storage onsite. Care should be taken when storing the membranes on sites and should not be kept within close proximity of any sharp or protruding edges to avoid puncturing or damaging the membrane.

Packaging Information

PENTENS SA-100	1m(W) X 20m(L)	wt.32kg
PENTENS Primer	PENTENS T-101	20kg/pail

Estimating Guide

PENTENS Membrane

- Allow 10% for laps and loss.
- Allow 2 % for normal detailing.
- Allow extra for turn ups etc.

Disposal

PENTENS SA-100 is non-hazardous, non-flammable and therefore it can be easily disposed. PENTENS SA-100 should be disposed with a wrap of paper, plastic or cloth since the modified bitumen has the tendency to be softened under heat and pressure, which would make further handling very difficult.

Health & Safety

PENTENS SA-100 contains a tacky bitumen compound which can stick to human skin during application. Bitumen stains can be removed by using a cloth dipped in a light solvent followed by plenty of soap and water. In case of contact with eyes, rinse with clean water and seek medical advice if symptoms persist.

PENTENS

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