

LIBERO

Bituminous Waterproofing Membrane

In details:

LIBERO membrane series are manufactured at production base of Ravago Group Co. Ravago is a multi-national group of companies at 50 countries through its 200 member companies and 4000 employees, is offering 50 years of its industrial and commercial experience to the customer's worldwide through by their own building constructions materials production premise, Libero membranes are manufactured with the latest technology on a fully automated production line and continuously tested by fully equipped generic laboratories. Ravago are rileded with stopper, bitumex and marvan located in Turkey. Libero membranes are produced with strict compliance to ISO 9001 quality standards at all levels of its processes.

Here You Will Find:

1. Name Descriptions,
2. Benefit and Advantage,
3. Field of Applications,
5. Technical Specifications,
6. Preparations & Application,
7. Vertical & Horizontal Method,
8. Storage & Safety System Details.



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"yaşama değer katar"



1. DISCRPTIONS

LIBERO XL P-1500 consists of a highly tear resistant, HDPE cross laminated polyethylene film comprising with a SBS bitumen / rubber adhesive and Sealing compound. It is cold applied and therefore no hot air or propane gas welding is required for application. Due to its high ductility it can easily be applied to any difficult area. The membrane is highly flexible, immediately waterproof, resistant to driving rain, and crack bridging. So that even large cracks are bridged securely. The membrane is mechanically fastened which leads to low preparation requirements on the substrate allowing waterproofing work to be carried out even at temperatures below 0°C.

2. BENEFIT/ADVANTAGES:

- ❖ Libero XL P-1500 has very high hydrostatic head resistance,
- ❖ Roll size is 20m x 1m; quick to lay. Fewer seams or laps per roll
- ❖ Cold applied, self-adhesive and laminated on the top side with a highly tear resistant film,
- ❖ It has full continuity at overlaps, Side and end laps are almost impossible to separate,
- ❖ Highly flexible, difficult to rip due to polymer modified rubber- bitumen basis composite,
- ❖ Easy to apply, no special equipment necessary or dangerous flames in enclosed spaces,
- ❖ Simple, reliable, low labor cost with the benefit of site programmed installation,
- ❖ it can protect the crack of new concrete structure also use for Prevention of crack in old structure,
- ❖ It can Provides effective external protection against aggressive environments and other attack,
- ❖ Provides external protection against aggressive soils and ground water,
- ❖ Unique formulation allows healing of small punctures, Accepts foot traffic during construction.
- ❖ Can be applied to all mineral substrates as well as to plastic and metal substrates,

3. FIELD OF APPLICATIONS:

LIBERO XL P-1500 is an ideal membrane for waterproofing horizontal and vertical surfaces of structures and/or structural members in accordance with DIN 18195. It can be used to seal basement walls, underground parking lots, retaining walls, garage roofs, balconies, terraces etc. By enclosing a structure, e. g. a basement, from all sides and the bottom, a closed tank is built. The material can be used inside and outside and can be applied to all substrates. The material is suited as a barrier against rising damp and also as a barrier under screed against water vapour rising from the ground.

4. TECHNICAL SPECIFICATIONS of LIBERO XL P-1500 (libpx):

S.L	Materials Properties	Topical Values	Test Standard
01.	HDPE XL (Upper Surface) Film Thickness	0.10mm	ASTM D 6988
02.	Composite Thickness	1.40mm	ASTM D 6988
03.	Membrane Thickness (Without Release Film)	1.5mm	ASTM D 6988
04.	Cold Flexibility (-) 25°C	No crack	ASTM D 146
05.	Tensile Strength	3.5Mpa	ASTM D882
06.	Elongation (Compound)	1250%	ASTM D638
07.	Adhesion to primed concrete	2.88N/mm	ASTM D 1000
08.	Tear Resistance (min)	3.5Mpa N/mm ²	ASTM D 1004
09.	Punch Resistance	230N 85mm	ASTM E 154
10.	Hydrostatic pressure @ 5bar (50m)	No leakage	BS EN 12390
11.	Water Absorption [Film] [%] @24hrs	≥0.10	ASTM D570
12.	Water vapor transmission, [g/m ² /24hrs]	≥0.10	ASTM E 96
13.	Chemical Resistance pH	2.5-11.5	ASTM D 543

5. SUBSTRATE PREPARATIONS:

This is very important to know about substrate preparations, as like the substrate or application can be dry or moisture . In case of active leakages, it has to be clean, as dry as possible or slightly damp, ice-free, without edges, ridges, nests or voids & without sharp corners. It can be mineral, polystyrene, metal or wooden. In case of basement walls made of masonry, the joints have to be closed flush. As a primer a thin coat of asphalt Liquid have to apply to the substrate (Consumption: approx. 150 – 300 g / m²). Alternatively, BITUMEX Primer SB, STOPER Bitumen Emulsion, Other Bitumen Primer (on old bituminous layers) can be used for priming. The priming layer must be allowed to dry completely. Apply the membrane on the same day.



6. APPLICATIONS:

When cutting membranes always use a sharp knife. To avoid having the knife stick to the membrane wet the blade repeatedly. Avoid cutting the material when it has been exposed to heat or direct sunlight. Remove the backing paper after cutting the membrane. Cutting membranes to length is facilitated by laying a piece of wood or straight edge on top of the membrane along the course of the cut as a guide and cutting support.

In case of strongly absorbent substrates, (e. g. porous concrete), a second primer coat may be necessary.

At wall / floor, wall / wall junctions and on offset foundations, It must be fully cured before the LIBERO XL P-1500 membranes are installed, (min. waiting time: 24 hours).

7. VERTICAL WATERPROOFING OF BASEMENT WALL:

1. All interior and exterior corners are reinforced by applying pre-cut membrane pieces approximately 30 cm wide. Remove the backing paper just before applying the membrane to the surface. 2. For waterproofing of the especially demanding internal and external corners use specially cut pieces of membrane. 3. Waterproof wall surfaces beginning approx. 30 cm above ground level, proceeding downwards to the wall floor junction and on to the side of the foundation. Pre-cut the membrane to the required length. Apply the membrane by removing the protective paper and pressing the membrane onto the substrate. Overlap the edge of the previously applied membrane by a minimum of 5 cm. All overlapping areas of the membranes must be firmly pressed together using a Rubber Hand Roller. Remove the backing pe film from the self-adhesive edge before applying the next membrane. 4. In order to avoid water infiltration behind the membrane, seal all exposed edges of the waterproofing layers as well as around pipe penetrations and other junctions and endings with bitumen Liquid Film. Mechanically fix the upper ends of the membranes with large headed zinc coated nails, (5 pieces / m), or with a fixing profile. In case of rough substrates or porous concrete, a second coat may be needed after the first coat has fully dried. Horizontal areas must be covered within two weeks of their application.

8. HORIZONTAL WATERPROOFING METHOD:

On top of the fillet, an approximately 30 cm wide strip is applied as corner reinforcement. Apply the vertical and horizontal layers on top of the strip. Roll out membranes or pre-cut pieces in a length of approx. 50 – 80 cm, remove approx. 30 – 50 cm of the backing paper at the beginning of the membrane and press the exposed adhesive layer onto the substrate beginning from the middle. Avoid trapping air and creating creases. Pull the backing paper through from under the roll and pull it off while unrolling the membrane. Firmly press the applied membranes onto the substrate. Use the Hand Roller on the overlaps and edge areas. Overlap the membranes a minimum of 5 cm. All inside corners are to receive a fillet. Cover roofs after waterproofing with a geotextile and cover with a screed or round gravel 16 / 32, 5 cm thick.

9. CLEANING:

Clean cutting tools with bitumen Cleaner.

10. PACKAGING

38kg with the dimensions of 1.5 mm x 1.0mtr. x 20mtr, roll

11. STORAGE

Do not expose rolls to low temperatures or direct sunlight. Store rolls Standing upright. Protect from pressure and moisture.

12. SAFTY

Observe all governmental, state, and local safety regulations when installing the material.

▪ Color Code of Slated Product:

Self-Adhesive Membrane		Black
Torch Applied Membrane		Red
Elastomeric Gardening		Green
Rooftop Waterproofing		Gray
Metal Roof Waterproofing		Aluminum