



OXIDIZED BITUMINOUS
WATERPROOFING MEMBRANES (0°C)

Reliable and well-tried waterproofing!

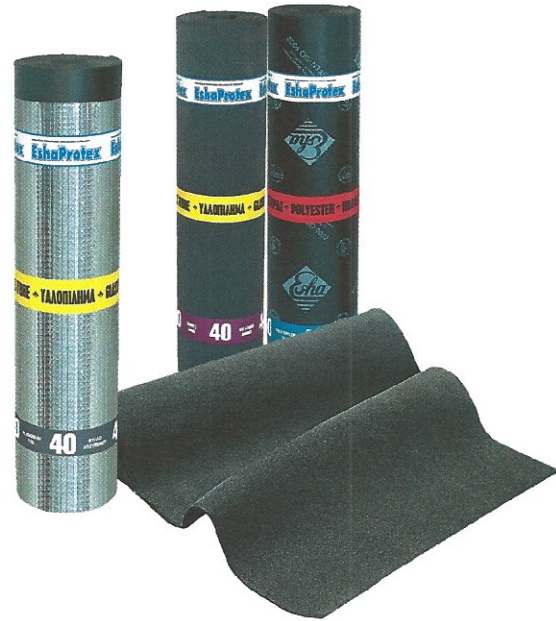
GENERAL DESCRIPTION

EshaProtex waterproofing membranes are produced by processing special types of bitumen, which have been subjected to oxidation. The oxidized bitumen mixed with special additives and plasticizers produces a binder with improved plasticity, increased resistance to ageing and heat, turning out extremely effective in waterproofing applications.

EshaProtex membranes, tried and tested over a number of decades, have proven their effectiveness in a great number of projects. Their technologically advanced production method and strict quality controls during all production stages, secure the stability of the product and make them one of the most reliable waterproofing materials, with a variety of applications.

The selection of the appropriate combination of reinforcement, surface finishing and weight/thickness of the membrane offers high quality solutions in every problem of waterproofing, like:

- Waterproofing of flat and inclined roofs
- Waterproofing of metal decks
- Re-roofing
- Waterproofing of underground works / Foundations
- Waterproofing of bridge-decks & parking decks
- Waterproofing of reservoirs (tanks) and canals



REINFORCEMENT

EshaProtex is reinforced with:

- Non-woven polyester
- Glass fleece
- Glass mat
- Aluminium foil
- Combination of the above reinforcements

Each one of these reinforcements determines the mechanical properties of the final product (cracking, stretching, puncture, resistance to tear, dimensional stability) as well as its use. Aluminium foil is used as reinforcement usually in combination with glass fleece, in waterproofing which necessitates the creation of a vapor barrier (**EshaProtex Sandwich**).

SURFACE FINISH

EshaProtex membranes are produced with the following surface finishes:

- Specially embossed aluminium foil for applications exposed to sunlight.
- A thin polyethylene film or quartz sand, for cases where waterproofing is protected by other material (e.g. tiles, concrete, etc.)

NORMS/CERTIFICATIONS

Esha Bituminous membranes comply with **EN 13707**, **EN 13969** and are certified with **CE No. 1020-CPD-010021423**

Application to roofs according to **EN 13707** and underground structures according to **EN 13969**.

For all available certificates and certifications please contact Esha Sales Department.

STORAGE

Membrane rolls should be stored in their original package, in vertical position, protected from direct sunlight, rain, snow and ice.



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APPLICATION PROCEDURE

Surface preparation

Before the application of the membrane it is necessary to prepare properly the substrate surface.

- The substrate surface must be thoroughly cleaned so as to remove all dust, loose matter and remaining oils, and be smooth and dry.
- Recommended surface slope: 1.5% minimum.
- The surface must be primed with Esha Roofcoat No 10 elastomeric bituminous varnish at a consumption of 0,4-0,5 kg/m², or EshaLac 50S bituminous primer at a consumption of 0,3 kg/m².
- Hot oxidized bitumen (consumption: 1,5 - 3 kg/m²) can be used as an alternative binder onto primed with EshaLac 50-S substrate.
- As soon as the surface is dry, the bituminous membrane can be torch applied.

Application of the bituminous membrane

- Membrane application starts from the lowest point of slopes in order to secure unobstructed water flow, when membranes are torched one in parallel to the other.
- The membrane is then rolled and positioned parallel to its adjacent one. It is then rerolled half-way without shifting.
- The bottom surface of the re-rolled part is heated with a propane torch until the bitumen becomes fluid and the membrane is

unrolled again to apply evenly on the substrate.

- Longitudinal overlaps must be at least 8 cm while transversal ones must be kept to a minimum of 12 cm.
- Overlapping joints are treated with a metallic lap-joint cylinder in order to apply the optimal pressure in these demanding areas.
- In multiple layer waterproofing, application of the successive layers follows the same procedure and is done in the same direction as the previous ones. Care is taken so that overlaps do not coincide with those of the previous layer.
- In a ballasted roofing, a well calculated ballast should be placed on an adequate membrane protection layer to avoid damage.
- **EshaProtex** membranes are suitable to use on mechanical fixation systems (e.g. metal desks or inclined roofs).

Application notes

- Application temperature should be higher than 5 °C.
- The waterproofing should be carried out by technicians, properly trained and certified in the bituminous membranes application.

For a more detailed description of bituminous waterproofing membranes' application please contact the Esha Sales Department.

APPLICATIONS

REINFORCEMENT	HIGH STABILITY POLYESTER	HIGH STABILITY POLYESTER	GLASS FLEECE	GLASS FLEECE	GLASS FLEECE + ALUMINIUM FOIL
TOP SURFACE FINISH	PE film or Quartz Sand	Aluminium foil	PE film or Quartz Sand	Aluminium foil	PE film or Quartz Sand
Flat roofs (protected waterproofing)	●		●		
Flat roofs (exposed waterproofing)		●		●	
Inclined roofs	●	●			
Metal decks	●	●			
Re-roofing		●		●	
Underground works / Foundations	●		●		
Bridge decks / Parking decks	●		●		●
Reservoirs(tanks) / Canals					●