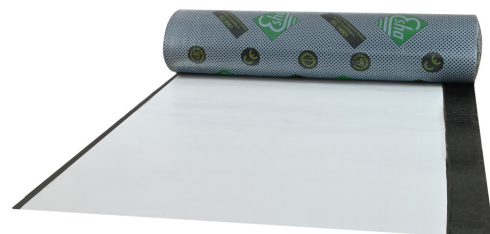


ESHA ULTRA WHITE

Elastomeric Bituminous Waterproofing Membranes
(SBS -20°C)



COOL ROOF CONCEPT

COOL ROOFS efficiently reflect sunlight keeping the surface cool by re-radiating the sun's heat (IR) back to the atmosphere. This is done by:

- Solar Reflectance: Is the ability of a material to reflect the sunlight from its surface.
- Thermal Emittance: Is the ability to re-radiate the already absorbed heat.

Most of the existing membranes are either dark colored e.g. gray - green colored mineral granules.

ESHA ULTRA WHITE top finish elastomeric (SBS modified) membranes use a tri-laminate polymer white colored reinforced film to effectively reflect and emit heat loads from all building surfaces that they protect.

ESHA ULTRA WHITE concept is produced in two types:

- Torchable SP polyester reinforced bituminous membranes.
ESHADIEN ULTRA WHITE
- Self adhesive bituminous membranes with high stability glass fleece reinforcement.
ESHASTICK ULTRA WHITE.

STORAGE

Membrane rolls should be stored in their original package, in vertical position, protected from direct sunlight, rain, snow and ice. In cold weather it is recommended that the rolls should be kept at temperature >5°C for at least 10 hours before installation.

Avoid strong and sudden roll impact, as well as fast unrolling during installation, transportation and storage, at low temperature conditions.

CHARACTERISTICS/ADVANTAGES

- ▶ Building's energy consumption reduction (air conditioning systems) by lowering the temperature beneath a flat roof at least by 5°C .
- ▶ Contribution to CO₂ emissions reduction.
- ▶ Increase of the waterproofing service life.
- ▶ Reduction of the urban heat 'island effect', caused by heat absorbing heating materials.
- ▶ Self cleaning surface with no 'yellow stains' and chalking effects caused at PU systems under sunlight exposure.
- ▶ No re-coating need every few years like common acrylic or PU waterproofing liquids.
- ▶ Absence of degranulation phenomena common at bituminous membranes gray or white color mineral granules finish.
- ▶ Constant Bright White color through its life span.

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APPLICATION PROCEDURE

Surface preparation

- Before application of the membrane it is necessary to prepare properly the substrate surface. The substrate surface must be thoroughly cleaned, remove all dust, loose matter and remaining oils in order to be smooth and dry.
- Smoothing of the surface with **VANDEX UNIMORTAR 1** repair mortar (if necessary).
- Recommended surface slope: 1.5% minimum.
- Recommended substrate relative moisture $\leq 6\%$.
- The surface must be primed with elastomeric bituminous adhesive **ESHAROOF COAT No10** at a consumption $\sim 0.4\text{--}0.5 \text{ Lt/m}^2$.
- Alternatively the surface can be primed with **ESHALAC 50-S** at a consumption $\sim 0.3 \text{ Lt/m}^2$ or hot bituminous adhesive (SBS modified) **ELASTOMERIC BITUMEN 07** or **PLASTOX1 (ASTM D-312 TYPE III)** at a consumption $2\text{--}4 \text{ Lt/m}^2$.
- As soon as the surface is tack-free, the bituminous membrane can be torch applied.

Application of the bituminous membrane

- To avoid water vapor condensation and localized stresses that can lead to local surface cracking, it is recommended to apply a separating/ventilating layer by installing a special **ESHAPERFO** or **ESHAVENT** or by another similar method of separating the waterproofing membrane **ESHA ULTRA WHITE**.
- The application of the main body (excluding overlaps) of the **ESHADIEN ULTRA WHITE** bituminous membrane is carried out using a propane **TORCH KIT** a torch head $\geq 50 \text{ mm}$ in accordance with **ESHA's** technical guidelines..
- Special attention is given to the overlaps (seams) of the bituminous membranes, for which either a handheld hot air gun or a self-propelled hot air machine with adjustable speed and welding temperature is used.
- Additionally, for proper seam adhesion, it is recommended to use an 8 kg **ROLLER PRESSURE SEAM** (The use of other tools such as trowels or rounded blades should be avoided, as they may damage the waterproofing and mechanical properties of the bituminous membrane).
- Finally, for unrolling and bonding the **ESHADIEN ULTRA WHITE** bituminous membrane to the substrate, it is suggested to use a special **ROLL PULLER** for front-side torching to prevent **footprinting**, as well as the **high point pressure** exerted by the applicator when stepping on the membrane (which can cause localized damage to the membrane's mechanical properties).

Application notes

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

CERTIFICATION

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



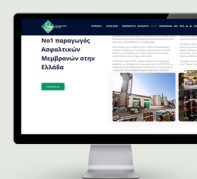
EPD certification is an independent assessment of a product's environmental impact throughout its entire life cycle, from initial production to disposal or recycling at the end of its life cycle. It contributes points to some of the leading green building programs, such as LEED certified building projects.

ESHA ULTRA WHITE

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



Today, Esha is the No. 1 producer of bituminous waterproofing membranes in Greece, while also offering more than 500 specialized products (emulsions and solutions for surface protection and waterproofing, joint sealing materials, acrylics, epoxies, polyurethanes, polysulfides, modified road asphalt (elastomers, plastomers, recycled tires), asphalt road emulsions, asphalt bridge waterproofing materials, polyurethane thermal insulation boards, etc.).



See the products
and their applications
on our new website
www.esha.gr

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Waterproofing Membranes
(SBS -20°C)

TECHNICAL CHARACTERISTICS

Characteristics	Standards	T	Nominal values		Units
			ESHADIEN ULTRA WHITE	ESHASTICK ULTRA WHITE	
Top surface finish	-	-	reinforced 3 laminated ultra white PE film		-
Bottom surface finish	-	-	torchable PE film	peel off siliconized film	-
Reinforcement	-	-	SP polyester	glass fleece	-
Length	EN 1848-1	-	10	20	m
Width	EN 1848-1	-	1	1	m
Thickness	EN 1849-1	± 0.2	-	2.0	mm
Weight	EN 1849-1	± 10 %	4.0	-	kg/m ²
Type	-	-	Ελαστομερές (SBS)		-
Softening point	EN 1427	≥	125	105	°C
Penetration at 25°C	EN 1426	± 5	35	85	dmm
Tensile strength L/T	EN 12311-1	± 20%	900/650	400/300	N/50mm
Elongation L/T	EN 12311-1	± 15%	50 / 60	5/5	%
Tear resistance L/T	ASTM D4073-94	± 15%	450/580	300/400	N
Static puncture resistance (concrete)	EN 12730/UEAtc MOAT27	-	L3 (15-25)	L3 (15-25)	kg
Dynamic puncture resistance (concrete)	EN 12691/UEAtc MOAT27	-	I3 (Φ 10 mm)	I3 (Φ 10 mm)	-
Flexibility to low temperatures	EN 1109	± 3	-20	-25	°C
Αντοχή σε υψηλές θερμοκρασίες	EN 1110	≤	110	100	°C
Water tightness (72 h)	UEAtc/EN 1928	-	Successfully Passed (≥)		bar
Solar Reflectance Index (SRI)	ASTM E 1980-01	≥	87		-
Reaction to Fire	EN 13501-1	≥	F		
Dimensional stability (L/T)	EN 1107-1	≤	-0,4 / +0,3	-0,1 / +0,1	%

Fluctuations in nominal values are in accordance with the relevant standards. The manufacturer reserves the right to modify the properties of its products. Esha provides information and, in particular, recommendations regarding the application and end use of its products based on its current knowledge and experience, when the products are stored, used, and applied under normal conditions. In practice, there are variations in substrates and local application conditions, so Esha cannot guarantee the success of the application of any material. It is recommended that the user test the application of the material under the local application conditions.