



WHITE REFLECTIVE ELASTOMERIC BITUMINOUS WATERPROOFING MEMBRANES FOR COOL ROOF APPLICATIONS

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:

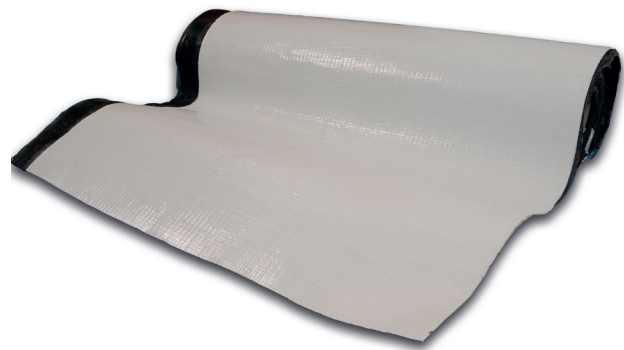
- Solar Reflectance: Is the ability of a material to reflect the sunlight from its surface.
- Thermal Emittance: Is the ability to re-radiate the already absorbed heat.

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:

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



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 every few years like common acrylic and PU waterproofing liquids.
- Absence of degranulation phenomena common at bituminous membranes gray or white color mineral granules finish.
- Constant Bright White through years.



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 a minimum temperature >5°C for at least 10 hours before installation.

NORMS/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.

WATERPROOFING MEMBRANES

COOL ROOF MEMBRANES



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TECHNICAL CHARACTERISTICS

Characteristics	Methods	T	Performance		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
Weight	EN 1849-1	± 10 %	4.0	2.0	kg/m ²
Type			Elastomeric (SBS)		-
Softening point	EN 1427	± 10	120	105	°C
Penetration at 25 °C	EN 1426	± 5	33	85	dmm
Tensile strength L/T	EN 12311-1	± 20%	900/650	400/300	N/50mm
Elongation L/T	EN 12311-1	± 15%	40 / 55	5/5	%
Tear resistance L/T	ASTM D4073-94	± 15%	450/580	300/400	N
Puncture resistance static	EN 12730/UEAtc MOAT27		L3 (15-25)	L2 (7-15)	kg
Puncture resistance dynamic	EN 12691/UEAtc MOAT27		I3 (Φ 8mm)	I3 (Φ 12mm)	-
Cold flexibility	EN 1109	± 3	-20	-25	°C
Flow resistance at elevated temperature	EN 1110	± 10	110	95	°C
Water tightness (72h)	UEAtc/EN 1928		passed		-
Solar Reflectance Index	ASTM E 1980-01	≥	87		-
Reaction to Fire	EN 13501-1	≥	F		-
Dimensional stability (L/T)	EN 1107-1	≤	-0,2 / +0,1	-0,1 / +0,1	%

Tolerances in the nominal values are in accordance with respective standards. Producer reserves the right to modify the properties of his products.

The information contained in this leaflet is, to the best of our knowledge, true and reliable and is supported by the present state of our knowledge. According to the care taken and the method of application, upon which we have no influence, the values are subject to divergence. Therefore for best results, prior to use, an application test should be made by the user under his own processing conditions.

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