BITUMINOUS EMULSIONS





HYPER-ELASTIC BITUMINOUS WATERPROOFING EMULSION

- Unique elasticity
- Perfect adhesion to all construction materials
- Excellent waterproofing result & Resistance to aging
- Short drying time
- ✓ Water soluble Friendly to use

GENERAL DESCRIPTION

EshaElastic is a high grade, hyper-elastic bituminous waterproofing emulsion. It is composed of purified bitumen, synthetic elastomers, resins, and anti-stripping agents.

When dry, it forms a continuous elastic film that shows excellent adhesion to most common structural elements and is resistant to UV radiation, despite its black color. Because of its unique elasticity (1200%) it exhibits excellent crack-bridging properties and has a wide range of waterproofing applications. It is user-friendly as it does not contain organic solvents and is dissolved with water.



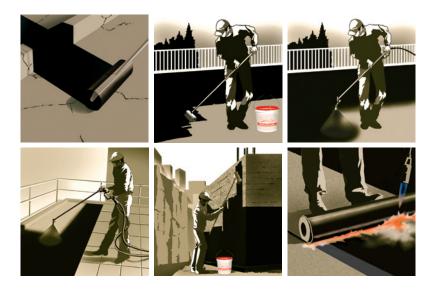
USES

- Waterproofing of flat roofs, balconies, side walls, basements and generally concrete surfaces.
- Excellent vapor barrier.
- Regeneration of old bituminous layers. When applied on top of old bituminous layers, it forms a final elastic and continuous film that seals any existing cracks and in the mean time stabilizes the mineral protective top finish (if any).
- Surface-primer for the adhesion of bituminous membranes. EshaElastic has unique advantages compared to bituminous

varnishes for the same application. It is water soluble, meaning easier and friendlier to use, and it has a special composition that enables the material to dry at a shorter time.

· Adhesion of thermo-insulating materials.

EshaElastic is compatible with concrete, light weight concrete, asbestos-cement, brick, stones, wood, metal, plasterboard, polystyrene and polyurethane.



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INSTRUCTIONS FOR USE

SURFACE PREPARATION

Surfaces should be regular, dust free, clean from oils and foreign matter. EshaElastic can be applied on a damp (not wet) surface.

APPLICATION

A. Waterproofing of surfaces/ Regeneration of old bituminous layers

- EshaElastic is cold applied in at least two layers by brush, roller or spray gun. Each new layer is applied in a criss-cross pattern with respect to the previous one, when the latter is dry, in order to avoid entrapment of water in-between successive layers. For the same reason one thick layer should be avoided.
- Reinforcement (e.g. polyester fabric or glassfleecer) may be used between two successive layers to increase the mechanical properties of the final film.
- EshaElastic is resistant to UV radiation. However, when used for waterproofing of exposed surfaces, it is recommended to coat the surface with a protective layer of EshaLumin bituminous aluminium paint, which functions as solar reflective surface and protects the roof from unnecessary overheating.

B Priming for application of bituminous waterproofing membranes

 Adhesion of bituminous membranes by means of a torch, on a pre-coated surface with **EshaElastic**, should start only after all water content has evaporated. In practice this means 2-3 hours in summer time and 6-8 hours in winter time, depending on weather conditions (temperature and moisture content).

Attention: EshaElastic must not be applied during frost or when the temperature is below $5\,^{\circ}\text{C}$.

CONSUMPTION

For concrete surfaces it is recommended to dilute **EshaElastic** with water up to 15 - 20% in the first layer (priming). If dilution is needed in subsequent layers then 10% is recommended. In both cases consumption ranges between 0.3 - 0.5 kg/m² per layer, depending on the surface type and porosity.

CLEANING OF TOOLS

Tools are cleaned with water if the emulsion is still fresh or with gasoline in case it has already dried.

PRECAUTIONS

- Prolonged skin contact with **EshaElastic** should be avoided.
- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- It should not be disposed to the ground but should be treated according to the relevant regulations.

For more information please ask the material's MSDS from Esha sales dpt.

PACKING

In Pails of 17 kg and drums of 170 kg

STORAGE

Stored in protected areas where temperature is maintained above 0 $^{\circ}$ C. Preserved in sealed containers for over a year.

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TECHNICAL CHARACTERISTICS

When dry, **EshaElastic** forms a continuous elastic film that does not shrink neither becomes brittle and retains its elasticity in a wide temperature range (-15 °C to 90 °C). It is not affected by

weak acid and alkali solutions, or common chemical substances contained in the soil. It is affected by mineral oils.

PROPERTIES	NOMINAL VALUE	TEST METHOD
PHYSICAL APPEARANCE	Viscous liquid	Observation
COLOR	Black	Observation
DENSITY	$0.95 \pm 0.05 \text{ g/cm}^3$	ASTM D-1475
RESIDUE BY EVAPORATION	55 - 60 %	Evaporation
Softening point of dry film	> 85° C	ASTM D-36
Flash point of dry film	≥ 200° C	ASTM D-92
Elongation	>1000° C	ASTM D-412
Water absorption	≤ 0.05 %	AASHTO T-238
Water pressure resistance	≥ 0.15 Mpa	DIN 16726
Touch free time	< 4h	ASTM D-2377
Flow resistance at 100° C	≤1mm	DIN 52123
Cold bending flexibility	≤ - 15° C	DIN 52123
Natural ageing Initial elasticity Change in elasticity	≥ 1280 % ≤ 2.5 %	Weathered outside for 1500 h
Impact resistance Falling height 300 mm, 0° C Falling height 200 mm, 20° C	No crack	ISO 6272
Gap bridging under pressure (0,5 bar, 8h, 3mm thick) Gap 3 mm, 0° C Gap 3 mm, 20° C	No leakage	AIB 1.997 Annex III Column 5
Concrete adhesion Cured for 1 day at 70° C Cured for 7 days at 70° C	> 0.15 N/mm ² > 0.20 N/mm ²	ASTM D-429
Cured for 28 days at 70° C	> 0.25 N/mm ²	

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

Directions given on or in the packages or containers will always prevail.

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.

${\sf Alfa-Alfa\ Energy\ S.A.}$

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