# **POLYURETHANE EXTENDED BITUMEN SEALANTS**





TWO COMPONENT ELASTOMERIC POLYURETHANE EXTENDED BITUMEN SEALANT FOR PROFESSIONAL USE

## **GENERAL DESCRIPTION**

**ESHAPOLYPHALT** is a cold applied high grade, self levelling, elastomeric, two component (A+B) POLYURETHANE-BITUMEN Sealant. When cured, it provides a permanently and highly elastic jointing compound capable of with standing a joint movement larger than 25%. It's advanced chemical formula is based on polyurethane elastomers & polymer modified bitumen.

**ESHAPOLYPHALT** is a two component (A+B) self levelling sealant. The two components are mixed at a ratio 1:1 (v/v). Polymerization leads to a polyurethane rubber material. **ESHAPOLYPHALT**, when cured, remains elastic within a temperature range of -30°C to 90°C.

**ESHAPOLYPHALT** shows very good resistance to ageing. It has no effect on polyurethane foam, and polyethylene. It has high crack bridging properties and It is resistant to detergents, mineral oils, weak acids, and alkali solutions. It attacks polystyrene.

## **TYPICAL APPLICATIONS**

- As Joint sealant for all common horizontal joints of construction elements and bridge decks.
- Shows excellent adhesion to all common structural elements.
- Bituminous waterproofing membrane finishes.

#### APPLICATION METHOD

#### a) Joint preparation

Joints should be dry, dust free, clean from oils and foreign matter. Previously used materials should be well removed. Sealing depth should not be less than a fraction of 0,7 the joint's width and be at least 7 mm.

### b) Joint sealing

For better adhesion, joint surface must be primed before sealing. The primer **ESHAPRIMER 21** is applied at least 1 hour, but not more than 4 hours before sealing.

Equal volumes of **ESHAPOLYPHALT**'s two components are mixed and stirred to only one direction, either manually, either with a low speed mixer (~300 rpm) to avoid formation of air bubbles. Stirring is continued for 3 min after homogeneity is achieved.

The time interval between mixing and pouring into the joint must not exceed 30-45 min at 20 °C. Solidification becomes apparent usually within 1-2 hours. At least a 24 hour period is required for **ESHAPOLYPHALT** to develop its final form. Polymerization time depends on temperature and humidity conditions of the environment.











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#### TECHNICAL CHARACTERISTICS

PROPERTIES	UNIT	DECLARED VALUE	STANDARD
Color		Black	OBSERVATION
Density	g/cm³	1,0± 0.1	EN 13880-1
Tack free time (25°C/ 50% RH)	h	≤ 5	EN 14187-2
Curing Rate (at 2 h)	%	> 80	EN 14187-1
Self Leveling Property (horizontal level, 5°C)	mm	≤ 1	EN 14187-3
Chemical Resistance againsta slightly acidic and alkaline solutions	%	<pre>≤ -25 (change in mass)</pre> ≤ ± 30 (change in volume)	EN 14187-4 (Test liquid 5%HCl & 5% NAOH)
Elastic Recovery	%	≥ 80	EN ISO 7389
Resistance to Hydrolysis (change in Hardness Shore A)	%	≤ ± 50	EN 14187-5
Modulus of elasticity at 100% extension for 24h at 23°C	MPa	≥ 0.15	EN 10002-1
Resistance to Flame	-	No flow, No flacking	EN 14187-7

## CONSUMPTION

For a joint of 2cm wide, and 1.4 cm deep, an indicative consumption of **ESHAPOLYPHALT A+B** per run meter is:  $100 \text{cm} \times 2 \text{cm} \times 1.4 \text{cm} \times 1,0 \text{ g/cm}^3 = 280 \text{ g}$ .

### **PRECAUTIONS**

Harmful if swallowed. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Keep out of reach of children.Do not eat, drink or smoke when using this product. [In case of inadequate ventilation] wear respiratory protection. IF INHALED: Remove person to fresh air and keep comfortable for breathing.Get medical advice/attention if you feel unwell.Dispose of contents/container in accordance with local/regional/national/international regulations.

Contains isocyanates. May produce an allergic reaction.

## **SPECIFICATIONS**

**ESHAPOLYPHALT** fulfills the requirements of ASTM D 1850 61T, DIN 18540, FEDERAL SPECIFICATION SS-S-200D & EN14188-2 (TYPE M-SL-D).

# **PACKING**

- i) In two containers 40lt (20lt A + 20lt B)
- ii) In two drums 400lt (200lt A + 200lt B)

# **STORAGE**

At least for one year in sealed containers. Store in dry environment. Do not expose to heat sources.

#### Note

All date given here in is for information only and cannot be considered as standard specifications and conditions of sale. Prior tests should be made by user the under his own processing conditions

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.

#### Alfa-Alfa Energy S.A.

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