



NIMACO

The Waterproofing Specialists

product data sheet
version 1.0

MAC ASPHALT

Two-component Polyurethane-Bitumen liquid membrane for waterproofing & protection.

DESCRIPTION

MAC ASPHALT is a fast-curing, two-component, bitumen-extended polyurethane fluid. It produces a highly elastic membrane with strong adhesion to many types of surfaces and excellent mechanical and chemical resistance properties.

It is based on a pure elastomeric hydrophobic polyurethane resin extended with chemically polymerized virgin bitumen.

APPLICATIONS

Waterproofing and protection of:

- Gypsum and cement boards
- Polyurethane Insulation Foams
- Asphalt membranes
- EPDM membranes
- Bathrooms (under tiles)
- Verandas and Balconies (under tiles)
- Flower Pots and Roof-Top gardens
- Light Roofing made of metal or fibrous cement
- Non-potable water tanks
- Basements
- Foundations
- Bridge platforms
- "cut-and-cover" tunnels irrigation channels.

LIMITATIONS: Not recommended for unsound substrates or UV-exposed applications.

FEATURES & BENEFITS

Components easily mixed 1:1 by volume.

- Fast curing.
- Thick, bubble-free, membrane possible.
- Being a two-component product means that the quantities not mixed can be stored for later use.
- Its low modulus gives it excellent substrate crack-bridging properties.
- Excellent adhesion on almost any surface, with or without the use of special primers.
- No thinning is required but solvent may be used.
- Excellent thermal resistance, the product never turns soft. Max service temperature 80 oC, max shock temperature 200 oC
- Resistance in the cold: The film remains elastic even down to -40 oC
- Excellent mechanical properties, high elongation, tensile and tear strength, high abrasion resistance.
- Good chemical resistance.
- Good water vapor barrier properties.
- Can also be used as a joint sealant.



APPLICATION PROCEDURE

Can be successfully applied on:

Concrete, fibrous cement, mosaic, cement roof tiles, old (but well adhered) acrylic and asphalt coats, wood, corroded metal, and galvanized steel. For information about other substrates, please contact our tech department.

Standard concrete substrate conditions (no primer needed):

- Hardness: R28 = 15MPa.
- Humidity: W < 10%
- Temperature: 5-35 oC
- Relative humidity: < 85%.

Primer selection for special conditions and substrates: Please refer to the *Primer Selection Table*.

Clean the surface using a high-pressure washer, if possible. Remove oil, grease and wax contaminants. Cement laitance, loose particles, mould release agents, cured membranes, etc. must be removed.

Priming: Apply the required primer following the guidelines

Mixing: Mix equal volumes of the two components manually or with a low speed (300 rpm) mixer.

Apply mixed quantities immediately. Pot life (of mix): 30-45 min at 20 oC

Application: Apply the material with brush, roller or spatula.



For application by airless spraying, the mix may have to be thinned with a small quantity of solvent, especially for low-power applicators.

Crack bridging: Is required locally over any cracks larger than 1 mm before the main coat.

CONSUMPTION

Minimum total consumption:
1.4 kg/m2 in one coat.

CLEANING

Clean tools and equipment first with paper and then using **MAC SOLVENT**.
Rollers will not be reusable.

PACKAGING

- 2x5 lit
- 2x20 lit
- 2x200 lit.

SAFETY INFORMATION

Can be kept for 12 months minimum in the original unopened pails in dry places and at temperatures of 5-25o C.
Cap tins air tightly in order to store unused quantities.
Contains a small quantity of volatile flammable solvents.
Apply in well-ventilated, no smoking areas, away from naked flames. In closed spaces use ventilators and carbon active masks. Keep in mind that solvents are heavier than air so they creep on the floor. The MSDS (Material Safety Data Sheet) is available on request.

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The product in liquid form (before application): ~90% dry matter in Xylene.

PROPERTY	UNITS	METHOD	SPECIFICATION
Viscosity (Brookfield) Comp. A: Resin Comp. B: Asphaltic mix	cP	ASTM D2196-86, @ 25 oC	1300 4300
Viscosity (Brookfield) of the mixture	cP	ASTM D2196-86, @ 25 °C	3000
Specific weight of the mixture	gr/cm ³	ASTM D1475 / DIN 53217 / ISO 2811, @ 20 °C	0.97
Flash point	°C	ASTM D93, closed cup	> 40
Tack-free time, @ 77 °F (25 °C) & 55% RH	hours		1-2
Recoat time	hours		6-24

In cured form (after application):

PROPERTY	UNITS	METHOD	SPECIFICATION
Service temperature	oC	-	-40 to 80
Max. temperature short time (shock)	oC	-	149
Hardness	Shore A	ASTM D2240 / DIN 53505 / ISO R868	34
Tensile strength at break @ 23 oC	Kg/cm ² (N/mm ²)	ASTM D412 / EN-ISO-527-3	> 21 > (2.5)
Percent elongation @ 23 oC	%	ASTM D412 / EN-ISO-527-3	> 2100
Tensile set (after 300% elongation)	%	ASTM D412	< 0.9%
Thermal resistance (200 days @ 80 oC)	-	EOTA TR011	passed
QUV Accelerated Weathering Test (4hr UV, @ 60 oC (UVB- Lamps) & 4hr COND @ 50 oC)	-	ASTM G53	passed (1000 hours)



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Chemical resistance (Sodium Hypochlorite NaOCl 5% 10 days)	-	-	unaffected
Hydrolysis resistance (Potassium Hydroxide 8% 10 days @ 50 °C)	-	-	unaffected
H2O absorption (10 days)	-	-	< 0.9%

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