

AC 500

HIGH PERFORMING WATERPROOFING MEMBRANE

DESCRIPTION

AC 500 is an elastomeric, single pack-roofing compound. Based on special Acrylic Polymers, it is ideal for dry substrate where it forms a seamless, joint free, water and weather tight elastic membrane.

USES

Existing Roofs. **AC 500** is suitable for roofs ranging from asphalt and asbestos cement to terrazzo tiles and concrete. The substrate may be horizontal or inclined. Use as a waterproofing membrane in traditional (warm roof), non-insulated and inverted roof structures.

FEATURES

- Resistant to aging & UV radiation
- Accepts light foot traffic
- Withstands temperatures from - 5 c to + 100 c
- Ease of application
- Non -toxic & non-hazardous
- Non-flammable as a liquid compound

COLORS

Satin white & Gray

PACKING

15 kg. Metal pails.

Other containers are available to special order.

INSTALLATION

GENERAL

- 1) **AC 500** may be applied by brush, roller, squeegee or spray equipment. The actual method of application depends on site conditions.
- 2) To spray, select a nozzle size of at least 0.028 in first checking the spray equipment to ensure suitability.
- 3) All surfaces to be coated must be clean, dry and free from dust, dirt, oil grease and other contaminants.
- 4) Coverage varies and depends on factors such as type and quality of substrates i.e. regularity of surface and method of application.
- 5) Apply in separate coats each at a right angle to the one before. Using a different color for each coat helps ensure consistency of cover.

The final coating thickness to be achieved depends on the requirements of the individual roof. A final dry film thickness between 0.5 and 1.5 mm may be built up.

PREPARATION

- 1) All surfaces to be smooth, clean, dry and free from dust, rust and latency

THERMAL INSULATION

- 2) Concrete and cementitious substrates must be well compacted with a wood float type finish, be at least 28 days old and well dried.
- 3) Wooden or metal panels to be firmly fixed in position.
- 4) Terrazzo roof tiles: Clean and repair damaged joints. Remove all loose material.
- 5) Metal roofs: Wire brush to remove moss, mildew and loose paint. Derust corroded areas, then clean surfaces with a broom before priming.

PRIMING

- 1) **Old asphalt surfaces and bituminous roofing felt.** Cut felt blisters cross wise, dry and rebound with suitable adhesive. then prime cleaned surface with Ac 500 diluted with 20% water.
- 2) **Concrete & Terrazzo tile roofs** Prime with **AC 500** diluted with 20% water.
- 3) **Metal Roofs.** Clean and remove all rust and apply a rust inhibitive primer. Follow this by applying metal primer to all corroded surfaces.
- 4) **Other Roofs.** Should the roof be affected by algae or fungal growth, use a stiff bristled broom to remove this, before treating the cleaned surface with a suitable fungicide, and apply primer coat by diluting AC 500 with 20% water.

APPLICATION

- Primer must be completely dry.
- **AC 500** may be applied by soft brush, roller or spray gun
- For spraying, **AC 500** may be slightly diluted with water. Too great dilution may lead to sedimentation and blocking of spray gun.
- Apply two coats, each at the approximate rate of 0.8 – 1.00 Kg/sq. m, to provide a total of about 1.6 to 2 kg/sq. m (including the **AC 500** prime coat).
- Where substantial movement anticipated in the substructure, reinforce **AC 500** by incorporating mesh reinforcement as part of a “sandwich” membrane system.

Lay this mesh in the wet first coat before application of subsequent coats.

All detailing to pipes, up stands, drains, projected line etc. should be mesh reinforced in this way.

CURING

Allow 24 hours between coats. A final curing time of 48 hours is adequate at normal working temperatures; Ensure curing is complete before laying thermal insulation boards, mechanical protection and other coverings.

Low temperatures and high atmospheric humidity will slow down the curing rate, and vice versa.

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Joint extruded polystyrene panels with closed cell structure may be placed over the AC 500 membranes. Boards thickness is determined by the required level of insulation.

MECHANICAL PROTECTION

Accessible roofs can be protected by insitu-concrete screed. Place a non-woven polyester separation layer over the acrylic waterproofing membrane followed by insulation boards. Then lay Kraft paper or polythene sheets as separation layer over the insulation boards and place the topping screed of 4 cm to 5 cm thickness or suitable cement tiles.

Non-accessible roof.

Place a no woven polyester separation layer over the acrylic waterproofing membrane followed by the insulation boards. Cover the insulation with another layer of non-woven Polyester separation layer and place 15/30 gauge washed gravel to a minimum depth of 5 cm. For thicker insulation boards, the graved depth should be at least equal to that of board thickness.

STORAGE

Keep away from direct sunlight and preferably store below 30 °C and above + 5 °C Protect from frost.

TECHNICAL DATA

Property	Result	Test Method
1. Solid content, %	65(+/- 1)	ASTM D 1076
2. Viscosity, CPS	50.000 - 70.000	Brook field
3. Density, Kg/l	1.30 (+/-0.05)	AASTMD 1475 -16
4. Application temp deg.c	+5 (minimum)	In-House test
5. Curing time, at 25 deg.c, Hr.	Approx., 48	In-House test
6. Service temperature, deg.c	Approx., -5 to + 100	In -House test
7. Tensile strength, N/CM2	2900	ASTM D 412
8. Elongation at break, %	550	ASTM D 412
9. Hardness shore A	68	ASTM D 2240
10. Permeability	Pass	ASTM E398
11. Dry peel adhesion, lb./sq. in.	65	ASTMC 297
12. Flexibility	No cracking of film when aged over 10 years weathering conditions and flexed 180 degrees.	In-house test
13. UV resistance	10.000 hr. No deterioration, no color fade	ASTM D 822
14. Colors	Satin White & Gray	
15. Coverage	For 1 mm thick dry film allow approx. 2kg/m2	

- Incorporation of reinforcement considerably increases the dry film properties

TECHNICAL SERVICE:

Our Technical Service Department is available at any time to advise you in the correct use of this product or any other Ahlia products.

Note : The information presented herein is based on the best of our knowledge and expertise for which every effort is made to ensure its reliability. Although all the products are subjected to rigid quality tests and are guaranteed against defective materials and manufacture, no specific guarantee can be extended because results depend not only on quality but also on other factors beyond our control.

As all Ahlia Technical Data Sheets are updated on a regular basis, it is the user responsibility to collect most recent issue

When stored in unopened containers, expect a minimum shelf life of one year.

PRECAUTIONS

- 1) Bitumen or asphalt roof surfaces to receive a coating of AC 500 should be thoroughly dry.
- 2) Never apply if rain is imminent.
- 3) Application of thick coat at temperatures below +5° C may result in incomplete film formation, with reduced elasticity and the possibility of crack forming.
- 4) Shoes, furniture, etc. will cause damage. In these cases tiles, stabs, etc should protect the membrane.
- 5) Do not clean the cured AC 500 coating with brooms that have hard bristles. These may cause damage.
- 6) Do not use AC 500 on areas that will be constantly submerged in water.

HEALTH & SAFETY

Generally safe, non-toxic and non-flammable whilst wet. However, avoid prolonged skin contact. Use of barrier cream, gloves is advisable. If comes in contact with eye rinse with copious amount of clean water. if ingested, seek medical attention immediately.