



AMCHEM
PRODUCTS PVT.LTD



Corporate
Video



CIT Certified
Low Carbon Footprint
Sustainable Product

With the perfect waterproofing...
Imagine the possibilities!

DRYTHANE[®] ALIPHATIC

Liquid Applied, Waterproofing Membrane Topcoat
The Decorative And Heat Reflective Waterproofing !

Revision 04



OVERVIEW

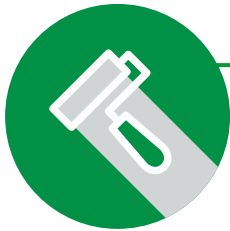
Drythane® Aliphatic is a 100% Solids, two component colour fast Polyurethane Coating system that contains no solvents, noxious smells and is non-flammable. It has been formulated specifically as a high performance waterproofing membrane topcoat which is decorative and in lighter shades, heat reflective.

Drythane® Aliphatic provides lifelong protection to

concrete and other masonry. Applied as a thick film (0.30-2.00 mm), this premium, high performance product has an expected service life of 20 years and more.

With Drythane® Aliphatic, you can create colourful and aesthetically pleasing roofs with colours motifs and designs. You can also line water bodies, swimming pools etc for long lasting protection.

PRODUCT FEATURES



SEAMLESS MEMBRANE, EASY TO APPLY

Liquid applied Polyurethane cures to a seamless monolithic membrane to a thickness of 0.30-2.00 mm. Simply mix the two components, pour and spread using paint roller to specified thickness in one or two coats. Special two component 100% Solids Damp Tolerant Polyurethane Primer will seal concrete prior to application of Drythane® Aliphatic top coat. Can be applied even in high humidity environments.

COLOUR FAST & HEAT REFLECTIVE

Aliphatic chemistry allows long term colour retention. You can create very attractive rooftops with shades, designs & patterns of your choice. Conventional products are Aromatic in nature which will dis-colour quickly (specially lighter shades). White and light shades of Drythane® Aliphatic will reflect solar rays and can reduce rooftop concrete surface temperature by as much as 13°C!



TOUGH, DURABLE FILM

Cured Drythane® Aliphatic film is a very tough, durable, elastomeric membrane with tensile strength of > 2,550 Psi (17.6 Mpa) and hardness of 60 Shore D (100 Shore A). Cannot be damaged during normal use – hence no need for reinforcement or protection covering with masonry. Resists degradation from sunlight (UV), rain, heat & cold weather. Provides a long service life of 20 years and more.

IMPERMEABLE TO WATER, GOOD CHEMICAL RESISTANCE

Drythane® Aliphatic is completely impermeable to liquid water and has very low water absorption in continuous immersion. Saturated weight gain < 1.50% as per Procedure 7.4 (Long Term Immersion) of ASTM D 570. This unique property allows it to be used for continuously damp or wet applications such as rooftop ponds, swimming pools etc. Drythane® Aliphatic is also highly resistant to a wide variety of Acid, Alkalis, Salts etc.



HIGH ADHESION

Bonds strongly to the substrate. In pull off tests, break takes place within the concrete and not at the interface. Unlike sheet applied materials, liquid water cannot intrude under the coating.

ELASTIC NATURE, CRACK SPANNING

Elastic membrane with > 85% elongation. It is unaffected by temperature cycling and will span cracks in concrete up to 2.30 mm. Using Drythane® Plus as a base coat with Drythane® Aliphatic as the top coat will increase the crack spanning of the combination.



APPLICATION

CONCRETE:

Drythane® Aliphatic can be used directly over concrete with PIV primer. Allow new concrete to fully cure for a minimum of 28 days (a concrete dryness test should be performed before application). Remove defective concrete, honeycombs, cavities, joint cracks, voids and other defects by routing to sound material.

MIXING OF MATERIALS:

Use a heavy duty power drill with Jiffy Mixer attachment. Mix Resin for 1 minute before adding Activator. After adding Activator mix the combined materials for a minimum of 2 minutes moving the mix blade from top to bottom. Make sure to mix areas around side walls and bottom of pail. Improper mixing will result in non-curing material. Never fully invert empty pails in attempt to drain material. This will result in non-curing material. Do not break down kits into smaller quantities. MIX ENTIRE KIT. Do not keep main coat in bucket after mixing - pour onto the surface immediately and spread.

SAFETY:

100% Solids Polyurethane systems are solvent free eliminating solvent health hazards and flammability concerns. All safety precautions warranted by good industrial hygiene practices and regulated by local, state or central laws must be taken into consideration while applying these coatings.

SURFACE PREPARATION:

Broom clean existing substrate. Clean substrate of contaminants such as laitance, dirt, debris, oil, and grease that can affect adhesion of Drythane® Aliphatic by water jet at minimum 3,000 psi. Remove existing coatings if any. Allow to dry thoroughly. Verify that existing substrate is dry before proceeding with application of Drythane® Aliphatic.

PRIMING:

Substrate must be free of laitance, dust, oils and grease. Divide the surface to be coated into grids of 8 Sq.M each. Spread mixed materials using roller @ 1 Kit (0.80 L Resin + 0.80 L Activator) / 8 Sq.m grid for 0.20 mm thickness single coat for moisture level of up to 4%. For 4-8% moisture level apply another coat after 3 hour minimum interval. If the primed area is exposed to rain, dry with a clean cloth and apply a coat of 100 microns.

COATING:

Divide the surface to be coated into grids of 8 Sq.M each. Spread mixed materials using notched trowel and then roller @ 1 Kit / 8 Sq.m grid for Drythane Standard/ 600 HE or @ 2 Kit/ 8 Sq.m for 400E/ Plus to get 1.00 mm thickness. Before beginning application measure the dew point using a digital psychrometer and the surface temperature using non-contact IR thermometer. Avoid applying if the air dew point is less than 3°C below the ambient temperature. Avoid applying during times of rapidly rising temperatures (forenoon) or if inclement weather is imminent. In case of rainfall after first coat, dry with a clean cloth and apply a primer coat of 75 microns. Allow to dry before applying second coat.

REINFORCEMENT: Drythane® Aliphatic normally requires NO reinforcement. However, if the surface is very rough or has voids Glass Mat/ Industrial Nylon Fabric reinforcement can be used. Fully embed reinforcement into wet base coat using a brush or roller until free of voids, wrinkles, air pockets, standing fibres, etc. Apply a second layer of base coat over the surface.

MATERIAL CHARACTERISTICS

SOLIDS VOLUME

100 percent

MIX RATIO (Resin : Activator)			RECOMMENDED DRY FILM THICKNESS	
Primer	1.0 : 1.0 By Volume (0.78 : 1 By Weight)		Primer	0.15 to 0.20 mm (single coat)
Main Coat (White)	2.5 : 1.0 By Volume (3.14 : 1 By Weight)		Main Coat	1.00 to 2.00 mm (1 or 2 coats)
COVERAGE (THEORETICAL)			SPECIFIC GRAVITY (Kgs / Litre; Resin / Activator / Mixed)	
Primer	1 Sq.M @ 0.20 mm = 0.20 Litre		Primer	0.96 / 1.24 / 1.10
Main Coat	1 Sq.M @ 1.00 mm = 1.00 Litre		Main Coat (White)	1.44 / 1.15 / 1.36
CURE TIME (Temperature Dependent)			COLOUR	
	Gel Time	Tack Free	Primer	Clear Dark Brown.
Primer	30-60 Mins.	90-150 Mins	Main Coat	White or An Other Colour On Request
Main Coat	30-60 Mins.	90-150 Mins		
PACKING (Can Size / Contents) Litres: For retail sales only			STORAGE & SHELF LIFE	
Primer	Resin (2.0/0.8), Activator (1.0/0.8)		Temperature: Min. 4°C, Max. 50°C	
Main Coat	Resin (5.0/2.57), Activator (1.03/1.03)		Containers must be kept sealed in a dry environment.	



ABOUT AMCHEM

Amchem is the pioneering manufacturer of two component solvent free polyurethane coatings. We have a 30 year track record and have executed some of the largest Polyurethane coating projects in the world. We ship our coatings worldwide from our ISO 9001, 14001 and 45001 certified plants in NOIDA, a suburb of New Delhi India. To learn more about our company please scan the adjacent QR code or visit <https://bit.ly/3JP0ipR>



TYPICAL APPLICATIONS

- Roof Top
- Roof Fountains
- Swimming Pools

PERFORMANCE PROPERTIES - MAIN COAT AT 23°C

Property	ASTM Standard	Test Result - Average
Tensile Strength	D 638, Type IV, 50 mm/min.	> 2,550 Psi (17.6 MPa)
Elongation @ Break	D 638, Type IV, 50 mm/min.	> 85%
Tear Strength	D 624, Die C	> 300 Lbf/in (52.5 N/mm)
Hardness, Shore A	D 2240	> 60 Shore D (100 Shore A)
Adhesion to Concrete	D 4541	> Tensile Strength Of Concrete
Abrasion Resistance	D 4060, CS-17, 1000 gms, 1000 cyl.	< 50 mgs. Weight Loss
Water Vapour Transmission Rate		2.10 gms/m ² / Day
Permeance	F 1249, 23C, 50% RH, 1.50 mm Film	0.176 Metric Perms
Permeability	Modulated Infrared Sensor	0.016 Perm Inch
Water Absorption (Saturation)	D 570, Para 7.4 Long Term Immersion	< 1.50%

Information contained in this publication is accurate to the best of knowledge and belief of Amchem Products Pvt. Ltd. ('AMCHEM'). However, it remains at all times the responsibility of the customer to ensure that AMCHEM materials are suitable for the particular purpose intended. Since conditions of usage are beyond our control, buyer assumes all risk of use or handling. No warranty, express or implied is made concerning the use of these products or recommendations and no liability for their use, or inability to use, is accepted.

Distributor: