

CEMTEC A1 BLACK P.U.

LIQUID APPLIED WATERPROOFING MEMBRANE



DESCRIPTION

CEMTEC A1 BLACK P.U. is a one-component, liquid, cold applied waterproofing membrane based on polyurethane resin. It is primarily designed to give superior waterproofing and protection to virtually all substrates. It reacts with moisture in the atmosphere and forms an impervious, rubberized membrane that resists water, oil, fuel and other common air pollutants. It is an advanced state-of-art waterproofing system and offers tangible, cost savings benefits over conventional sheet and bitumen based systems.

FEATURES & ADVANTAGES

- Easy to apply, by brush, roller or spray. Eliminates the use of adhesives, sealing tapes, blow torches, heating kettles commonly associated with sheet type or bitumen based system. No need for highly skilled laborers.
- Does not create mess and objectionable odor like bitumen based materials. Provides a seamless (no joint) waterproofing unlike sheet type membranes whose application is susceptible to water leak coming from the seams. No waste and cuttings.
- Resists deterioration from salts, acids, oil, alkali solutions, gasoline and bacteria
- Adheres tenaciously to any substrate and remains flexible under extremes of temperature, will not crack or become brittle with age.
- Versatile, nonflammable and non-toxic.
- Due to efficiency in application, labor cost is reduced and results in shorter completion time of construction.
- Available in 20 ltr pail unlike bulky sheet type membranes.
- Maintenance free waterproofing system.

BASIC USES

Adheres tenaciously to any substrate and remains flexible under extremes of temperature, will not crack or become brittle with age.

DIRECTIONS FOR USE:

Surface Preparation

Remove all dirt, laitance, oil grease, wax and other loose materials from the surface using a stiff nylon or steel bristled brush followed by compressed air. Voids, crack, and irregular surface with at least 3 mm depth shall be filled or levelled with mortar screed and allowed to cure at least forty eight (48) hours.

Priming

Prepare primer coat by mixing one (1) part Xylene to three (3) part **CEMTEC A1 BLACK P.U.** by volume. For horizontal or vertical surfaces, apply a thin coat of primer. Airless spraying equipments may also be used. Care should be taken that no excess liquid collect on the edges of the wall converging on the floor. If this occurs, the liquid must be evenly spread out by brush. Allow to cure prior to the next coat (usually from 10-14 hours). Best results can be obtained by limiting the thickness of the prime coat between

First And Succeeding Coats

After the prime coat has cured, apply a thin coat of **CEMTEC A1 BLACK P.U.** (without xylene) starting with the vertical surface. Ensure that the edges of the vertical surface are evenly coated with P.U. and extends to the horizontal surface by 100 mm. Disperse liquid that may collect on the edges. Coating shall be allowed to cure at least one (1) day prior to the succeeding coats. Thickness should be limited to 0.5 - 0.6mm per coat. Optimum performance can be obtained at a total membrane thickness of 1.0 mm including the prime coat.

Caution

- Do not apply **CEMTEC A1 BLACK P.U.** on wet or unprepared surfaces.
- Smoking should be strictly prohibited during application. In confined areas of application, breathing equipment should be made available for operatives.
- Use protective clothing gloves, mask, goggles, etc.
- Avoid inhalation or contact with skin or eyes. In such events remove the person to fresh air, water with clean water over the affected area and call for medical attention.

LIMITATIONS

- Not Recommended to be exposed to direct sunlight
- Open only the required amount of material that can be used. The material will harden/ cure in the container if not used
- If R.H. is less than 50% contact CMCI Technical Dept.
- Solvents in **CEMTEC A1 BLACK PU** are flammable. Keep away from heat, sparks, open flame or lighted cigarettes. Use explosion-proof application equipments.

COVERAGE	20 liters will cover approx. 16 m ² at 1000 micron dry film thickness depending on surface profile.
PACKAGING	Available in 20 kg and 20 ltr pail
COLOR	Black

PHYSICAL PROPERTIES

PROPERTIES	RESULTS	TEST METHOD
Tensile Strength - 200% Modulus	200 psi	ASTM D 412
Tensile Strength/ Modulus at break	435 psi or 3 MPa	ASTM D 412
Tensile set recovery %	95	ASTM D 412
Elongation%	440	ASTM D 412
Low temperature flexibility		
Cracking	None	ASTM C-836
Adhesion to mortar, n/mm	3325	ASTM D 413 TypeA
Water vapor permeability, Metric perms	0.4	ASTM E -96 Method BW
Shore A hardness	45	ASTM D 2240
Tear resistance, KN/m	25.1	ASTM D-624 die C
Heat aging % weight loss	0.92	7 days at 82° C
In service temperature	No cracking	----
20- hours @ 121° C	No shrinkage and 435% elongation	
Chemical Resistance, % wt. change		ASTM D 471
Water	3.5	
10% NaCl	2.1	
5% NaOH	2.3	
SO ₄	3.3	
Brittleness temperature° C	-42	ASTM D-746

Note: Ultimate tensile strength can be increased seven (7) times if reinforced with fabric mesh

Quality Statement

CMCI manufactures its products at their manufacturing facility in Saudi Arabia as per the Quality Procedures certified to conform with quality Management System described in ISO 9000 series

TSS/TDS/190421

CMCI provides a comprehensive technical support system for its full range of high performance construction products CMCI also offers full technical field support to consultants, Architects, contractors, applicators and End Users.

"High Quality Construction Chemicals"
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The Technical Specification information and recommendations given are based on the current technical knowledge and the user or his representative is recommended to check the suitability of the product CMCI reserves the right to amend the technical characteristic of the product as part of ongoing research and development. As the work execution is beyond the direct and continuous control of CMCI no guaranty and or responsibility is assumed on the performance of work completion executed with use of our products.