



ARMSTRONG CHEMICALS PVT. LTD., Bengaluru
An ISO 9001 Certified Company



Single component Cold applied Polyurethane Reinforced Eternal Waterproofing Membrane Coating
Complies with ASTM D-6083-97a & EN 1062-3 Requirement of EN 1504-2

DESCRIPTION OF THE PRODUCT :

RAINPROOF PU 400 R - is a single component liquid applied polyurethane reinforced waterproofing membrane. When applied by brush, roller or spray forms into tough, Elastic and monolithic film which withstand against extreme climatic conditions, addition of reinforcement will impart high flexibility, crack bridging capacity and abrasion resistance of coating with long lasting polyurethane self cure eternal water proofing membrane. **RAINPROOF PU 400 R** - Is based on pure, elastomeric, hydrophobic, polyurethane resins, which is eternal and proved with excellent mechanical, chemical, thermal and natural element resistance properties.

RECOMMENDED : Terraces, Parapet Walls/Walls, Power Houses, Building Roofs etc.,

ADVANTAGES :

- Excellent durability.
- It forms monolithic film.
- When applied it forms a seamless membrane without joints or leak possibilities.
- Resistant to water • Resistant to frost • Colour Stable • Can be walked on
- Provides excellent adhesion to almost any type of surface like Concrete / Metals / Wood / Tiles.
- Provides excellent crack-bridging upto 6mm
- Provides water vapor permeability, so the surface can breathe.
- Provides excellent thermal resistance.
- Maintains its mechanical properties over a temperature span of 30°C to 90°C
- Even if the membrane gets mechanically damaged, it can be easily repaired locally within minutes.
- Resistant to detergents oils, seawater and domestic chemicals. • Fire resistant (EN 12501-1)

TECHNICAL PARAMETERS

S.No.	PROPERTIES	TYPICAL VALUES	TEST STANDARDS
1.	Chemical Base	Polyurethane reinforced modified acrylic Dispersion Form	
2.	Solid content	85% $\pm$ 2	
3.	Water vapor permeability	≥ 25 gms / sq.mt./day	EN ISO 7783-2 / 9932 :91 Class I m Sm
4.	Permeability to CO ₂	5d > 50m	Permeable
5.	Adhesion	> 2.0 N/mm ²	EN 1542, requirement for flexible system without trafficking -0.8 N/mm2
6.	Viscosity	5,500 $\pm$ 500 Mpa sec (at+23C)	
7.	Temperature resistance	From - 25°C to 90°C	
8.	Colour	White	
9.	Density	1.2 kg/l	
10.	Elongation at Break %	700 $\pm$ 50	ASTM D 412/D2370-98
11.	Tensile strength	4.8 N/mm ²	ASTM D 412/D2370-98
12.	Water impermeability	5 atm (DIN 1048)	5ATM (DIN 1048)
13.	Infrared Emittance	0.9	ASTM E 1980-0
14.	Hardness according to Shore A	80 $\pm$ 2	
15.	Toxicity & Fungi Resistance	Non-Toxic & Zero rating	ASTM G 21-96
16.	Solar Reflectance Index (SRI)	106	EN 1062-3 requirement of EN 1504-2 : W < 0.1
17.	Capillary Absorption	0.01 Kg /m ² - h ^{0.5}	EN 1062-6
18.	Crack bridging ability (Static)	6.5 $\pm$ 0.5mm	AS-NZ 4548
19.	Overcoating interval time	8-12 Hrs.	
20.	Pull off strength, Dry concrete with Conproof EP primer	1.5 Mps $\pm$ 0.15	ASTM D 7234
21.	Puncture resistance	> 220N	ASTM E154

APPLICATION INSTRUCTION : SURFACE PREPARATION :

● Surface preparation is most essential for optimum finish and durability. ● The surface needs to be clean, dry and sound, free of any contamination, which may harmfully affect the adhesion of the membrane. ● Moisture content should not exceed 5% substrate compressive strength should be at least 25 MPa, cohesive bond strength at least 15 MPa. ● New concrete structures need to be cured for at least 28 days. ● Old loose coatings, dirt, fats, oils, organic substances and dust need to be removed by a grinding machine. ● Possible surface irregularities need to be smoothed. ● Any loose surface pieces and grinding dust need to be thoroughly removed. ● Wash surface with water, and allow it to dry before coating application

REPAIR OF CRACKS & JOINTS : Sealing the existing cracks and joints before the application is extremely important for long lasting waterproofing result. Clean the concrete cracks and hairline cracks, dust, residue or other contaminations. Fill all prepared cracks with ROOFEXSEAL PS/ROOFEXSEAL PU. Then apply a layer of **RAINPROOF PU 400 R** over all cracks and while wet, cover with a correct cut stripe of the Geo Textile Press it to soak. Then saturate the Geo Textile with **RAINPROOF PU 400 R** until it is fully covered, allow 12 Hrs to cure.

If necessary Prime the cleaned & crack filled surface with high bond acrylic penetrative water barrier primer coating with **ROOFBOND BCS PRIME 501** / high bond water thinnable epoxy coating with **CONPROOF EP 503** and allow 2-3 hour to dry.

Clean concrete expansion joints and control joints or dust, residue or other contaminations. Widen and deepen joints (cut open) if necessary. The prepared movements joint should have a depth of 10-15mm.

The width depth ratio of the movement joint should be at a rate of approx 2:1.

Apply some **ARMSTRONG SEALANTS** AS ABOVE MENTIONED on the bottom of the joint only. Then with a brush apply a stripe layer of **RAINPROOF PU 400 R**. Place the geotextile over the wet coating and with a suitable tool, press it deep inside the joint, until it is soaked and the joint is fully covered from the inside. Then fully saturate the fabric with enough **RAINPROOF PU 400 R**. Then place a **FLEXI** backing rod of the correct dimensions inside the joint and press it deep inside onto the saturated fabric. Fill the remaining free space of the joint with **ROOFEXSEAL PU** or **ROOFEXSEAL PS** do not cover it. Allow 12-18 hours to cure.

APPLICATION METHOD : (A) Before application, mix the material slowly to get homogeneous consistency. (B) Apply one coat of **ROOFBOND BCS PRIME 501/ CONPROOF EP 503** (Water thinable Epoxy coating) with a consumption of 150 gms / sq.mtr. as a primer coat and allow it to dry for 4-6 Hrs.

RAINPROOF PU 400 R Application of main coat : (A) Before application, mix the material with mechanical mixer to get homogeneous brushable consistency. (B) Apply First coat of undiluted material with brush or roller at the consumption of 500 gms./ sq.mtr. and allow it to dry for 8-12 Hrs. (C) Apply Second Coat with 30% dilution (with water) at 400 gms./sq.mtr. (D) Spread 50 GSM Armstrong's Fibre mesh / Geo Fabric cloth on the second coat immediately. Ensure that there are no folds or wrinkles when the fiber mesh / geo fabric cloth is spread. (E) Apply Third Coat with 30% dilution of water at 400 gms./sq.mtr. on the fiber mesh / geo fabric cloth (wet on wet) and impregnating the fiber mesh / geo fabric cloth completely. Press the roller uniformly to hide rising geotextile heads. Allow second coat to dry for 8-12 Hrs. 100mm overlapping of fiber mesh / geo fabric cloth need to be done at all joints & corners for better reinforcement. (F) Apply Fourth coat of undiluted material with the help of a brush or roller with a consumption of 500 gms./sq.mtr.

Drying may vary depending on temperature and humidity, higher humidity may cause delay in drying, hence provide adequate time to completely dry between the coats. For best results, the temperature during application and cure would be between 5°C and 35°C temperatures.

WARRANTY : 25 Years Waterproofing Warranty

COVERAGE : 1.8 Kg/m² in 4 coats. This coverage is based on application by roller onto a smooth surface in optimum conditions. Temperature and application method can alter consumption.

NOTE : As per site condition / guarantee period, material consumption may vary from 0.9 Kg. to 1.8 kg.

PACKAGING 5, 10, 20 & 225 kgs.

SHELF LIFE Two years from the date of Manufacturing

Whilst **ARMSTRONG CHEMICALS PVT. LTD.** strives to ensure that any advice, information or recommendation given are appropriate and correct. It cannot accept any liability directly or indirectly arising out of the use of products since the method and place of application of the products are beyond its control.

NOTE : Warranty of 25 years subject to Manufacturers - Terms & Conditions.

Authorised Distributor / Stockist

ARMSTRONG CHEMICALS
TRUSTED AND ACCLAIMED FOR ITS
MULTIPLE ACTION PERFORMANCE



Manufacturers :

ARMSTRONG CHEMICALS PVT. LTD.

An ISO 9001 Certified Company

Regd. Off : 36/1, G-5, New International Airport Road, Ganga Nagar, BENGALURU - 560 032.

e-mail : armstrongchemicals@gmail.com; Web : www.acpl.live | www.armstrongchemicals.in

Please Contact for Customer Care Information : **08095621122** | Toll Free No. **1800 103 2034**