



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

RAINPROOF PU 400[®]

(Formerly known as Roofcoat PU 400)

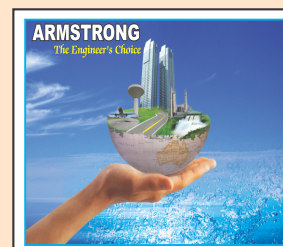
Single component cold applied polyurethane waterproofing coating
Complies with ASTM D-6083-97a & EN 1062-3 Requirement of EN 1504-2

DESCRIPTION OF THE PRODUCT :

RAINPROOF PU 400 - is a single component liquid applied polyurethane waterproofing membrane highly permanent elastic, cold applied and self curing, polyurethane membrane used for long lasting waterproofing.

RAINPROOF PU 400 - Is based on pure, elastomeric, hydrophobic, polyurethane resins, which proved with excellent mechanical, chemical, thermal and natural element resistance properties.

Recommended for wet areas (under-tile applications) in Kitchens bathrooms, balconies, terraces, walls, power house, water retaining structures, reservoirs etc.,



ADVANTAGES :

- 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 properties.
- Provides water vapor permeability, so the surface can breathe.
- Provides excellent thermal resistance, it never turns soft.
- 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 modified acrylic Dispersion Form	
2.	Solid content	91% +/- 3	
3.	Water vapor permeability	Sd - 0.82 m	EN ISO 7783-2, 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/mm ²
6.	Viscosity	5,500± 500 mPa·sec (at+23C)	
7.	Temperature resistance	From - 25°C to 90°C	
8.	Colour	White	
9.	Density	1.44 kg/l	
10.	Elongation of Break %	700 ± 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)	5 ATM (DIN 1048)
13.	Infrared Emittance	0.9	ASTM E 1980-0
14.	Hardness according to Shore A	80 ± 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

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 dry 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 smoothened.
- Any loose surface pieces and grinding dust need to be thoroughly removed.
- Do not wash surface with water, before coating application.

REPAIR OF CRACKS & JOINTS :

Seal the existing cracks and joints before the application is extremely important for long lasting waterproofing result. Clean the concrete cracks and hairline cracks, of dust, residue or other contaminations. Prime locally with the RAINPROOF PU 400 PRIME and allow 2-3 hour to dry.

Fill all prepared cracks with ROOFSEAL PS/ROOFSEAL PU/RAINSEAL BXL / WONDERSEAL XL/WONDERSEAL POWDER. Then apply a layer of RAINPROOF PU 400 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 until it is fully covered allow 12 Hrs to cure.

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 to depth 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. 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. 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 ROOFSEAL PU or ROOFSEAL PS do not cover. Allow 12-18 hours to cure.

PRIMING : Brittle substrate must be primed with RAINPROOF PU 400 allow the primer to cure according its technical instruction. On stable, sound and well-prepared concrete surfaces no primer is necessary.

WATERPROOFING MEMBRANE : Concrete substrates must be treated and sealed with ROOFCARE EP / ROOFCEMENT AR treatment to seal the cavities and to strengthen the top surface.

Stir well before using for a least 2-3 minutes. Apply the RAINPROOF PU 400 onto the surface by roller or brush until all surface is covered. After 12-18 hours (not later than 48 hours) apply another layer of the RAINPROOF PU 400.

If the RAINPROOF PU 400 is to be covered with ceramic tiles, fully saturate with oven-dry silica sand (corn-size 0.4 – 0.8mm) the last layer while still wet. This saturation will create an adhesion bridge to the tile adhesive that will follow.

Reinforce always with the GEO TEXTILE at problem areas, like wall-floor connections, 90° angles, chimneys, pipes, waterspouts (siphon), etc., in order to do that apply on the still wet RAINPROOF PU 400 a correct cut piece of GEOTEXTILE press it to soak, and saturate again with enough RAINPROOF PU 400.

For best results, the temperature during application and cure would be between 5°C and 35°C low temperatures retard cure while high temperature speed up curing high humidity may affect the final finish.

COVERAGE :

1.2 / 1.5 Kg/m² in two or three layers. This coverage is based on application by roller onto a smooth surface in optimum conditions. Temperature and application method can alter consumption.

PACKAGING

1, 5, 10, 20 & 210 Ltrs.

SHELF LIFE

Two year 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.



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