RECKON CHEMICALS (PVT) LTD.
www.reckonchemicals.com
info@reckonchemicals.com

# REC COAT PU-674

## UV stable solvent based polyurethane coating

### PRODUCT

**Rec Coat PU-674** is a two component, solvent based aliphatic isocyanate polyurethane coating known for its excellent physical properties, including high durability, flexibility, and resistance to abrasion and chemicals. The fully cured coating has excellent stability to UV light, It also has excellent hiding capability and color stability, moreover, it is a non-yellowing and non-chalky product. **Rec Coat PU-674** is available in colored forms with gloss or matt finish.

### SCOPE OF USE

- Parking decks
- Bridge decks
- Industrial floors
- Food industry floors
- Warehouses
- Service stations
- Chemical plants
- Metal treatment plants
- Machinery service areas

| CHARACTERISTICS | |
|---|---|
| Color | Grey, yellow, red, ivory, transparent and others |
| Finish | Gloss & Matt |
| Specific gravity | 1.3 (±0.05) |

| | |
|---|---|
| Volume solids (ASTM D2697) | 52% ±2 |
| Pot life | @ 25°C 6 hours @ 35°C 4 hours |
| Drying time | @ 25°C 45 min<br>@ 35°C 30 min |
| UV stability | Excellent |
| Tensile Adhesion (In-house) | Above concrete >2 Mpa |
| Over coating interval | @ 25°C 16 hours<br>@ 35°C 10 hours |
| Chemical resistance | Excellent |
| Water resistance | Excellent |
| WFT | Around 100 microns |
| DFT | Around 60 microns |
| Application temperature | 5°C to 40°C |
| Elongation (ASTM D412) | 40% |
| Abrasion resistance (ASTM D4060) | 0.02g |

### INSTRUCTIONS FOR USE

#### SURFACE PREPARATION

New concrete should be at least 28 days old. All surfaces should be clean, dry, and free from grease laitance, oil, dust, paint and any other substance that may prevent or reduce adhesion. Moreover, moisture content of the substrate should be <5%. Remove all weak, loose, smooth or broken pieces of concrete, until reaching a sound rough concrete. This can be achieved primarily by blasting or grinding. The prepared surface must have an average "Surface tensile adhesion strength" >1MPa. Moreover, it should have CSP ( concrete surface profile) of 3-5. Concrete must be crack free, thus, any crack must be re- paired prior to application with the appropriate epoxy-based material according to the crack dimensions. Depending on substrate conditions, deeper ruptures and cracks must be filled with **Rec Coat EPO-682** (up to 3mm) and **Rec Coat EPO L-90** (3-10mm), freshly scattered with sand, to increase the bonding and create a strong mechanical key (For more details, please refer to the above-mentioned products data sheets). Once the substrate is well prepared, it must be dust free, preferably using a vacuum machine, prior to **Rec Coat PU-674** application.

**WARNING:** Do not wash the substrate with water at any time!

After substrate preparation, clean all joints thoroughly then apply masking tape either side of the joint to protect surfaces from primers and excess of material. Backer Rod should be pressed into the joint, allowing a sealant depth of around 1.5cm, then inserts or pour the sealant into the joint.

#### PRIMING

If the substrate is sound, untreated, and nonporous, the primer application is not normally required. In case of any doubts concerning the quality of the substrate, or its porosity, applying the primer will be required. For high porous substrates, it is recommended to apply **Rec Coat EPO-679** and for low porosity substrates, apply **Rec Coat EPO-678**. The primer should be left to achieve a tack-free condition before applying **Rec Coat PU-674**. A second coat of primer may be required if the substrate is excessively porous. For thick application, the primer usage is a must.

#### PRODUCT PREPARATION

It is essential that the mixing instructions are carefully followed to ensure that all characteristics of the product are achieved. Failure to do so, can result to lower performance or even possible to failure of the product. Pour Part B over Part A, mix the two parts for 2-3 minutes using an electric mixer with low rotation speed (<300 rpm). Make sure to keep the drill paddle below the surface of the material to avoid entrapping air, **Rec Coat PU-674** must be well mixed to ensure proper

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chemical reaction. After mixing, keep the mix to rest for 2 minutes before the application. Do not add solvent, water or thinner at any time during the mixing or the application.

### PRODUCT APPLICATION

**Rec Coat PU-674** can be applied by using a brush, a roller. The first coat from **Rec Coat PU-674** should be applied with a minimum wet film thickness of 50-60 microns to a theoretical coverage rate of 8-10$m^2$/lit. When the first coat has reached initial cure ( within maximum 24 hours depending on the temperature), the second coat can be applied at a minimum wet film thickness of 90 microns. Once the application is completed, allow adequate ventilation for solvents and fumes to evaporate. Plan your work by having everything ready to go and by limiting the quantity which can be mixed and applied in a time aligned with the product pot life mentioned in the product characteristics.

NOTE: **Rec Coat PU-674** will not sag if applied vertically, up to 100 microns.

## CONSUMPTION

Theoretical spreading range is from 8-10 $m_2$/lit.

Recommended wet film thickness range: 70–130 Microns/Coat.
Recommended dry film thickness range: 40–70 Microns/Coat.

## STORAGE

12 months after manufacturing date in its original packing non open and in dry cool area.

## SAFETY PRECAUTIONS

Application should be done in a ventilated area away from any heat source. Wear protective gear for hands and eyes and avoid breathing of vapor. If mixed resin comes into contact with the skin, it should be promptly removed before hardening, followed by thoroughly washing the skin with soap and water. In case of heavy vapor inhalation, place affected person in an open-air area. In case of contact with eyes, wash thoroughly with clean water. If swallowed, do not induce vomiting. In all cases, seek medical attention. In case of fire, use $CO_2$ foam to extinguish. Tightly seal containers when not in use, store them away from heat and carefully dispose empty ones.

## DISCLAIMER

While the company guarantees its products against defective materials, the use and application of these products are made without guarantee since the conditions of their application are beyond its control. It is recommended to verify with the company that the product is suitable for the intended use, and that this Data Sheet version is the latest one. The company may modify it without prior notice. Technical characteristics are listed for guidance only. For more information, please contact the company's office in your location.

## NOTE