

SINGLE COMPONENT, POLYURETHANE BASED COLD LIQUID APPLIED ELASTOMERIC WATERPROOF COATING SYSTEM
Description

NIROGUARD PU1 is a single component, high build, cold liquid applied polyurethane based, elastomeric waterproof coating system. It cures to form an elastic, seamless, waterproof coating with good crack-bridging properties. It conforms to ASTM C 836 - 89

Uses

As a seamless, impervious elastomeric waterproof coating system on a wide range of concrete structures such as foundations, basements, tunnels, ground floors, suspended floors, car decks, roof terraces, balconies, patios, bridges, precincts, inspection pits, water retaining structures (not potable water), sewage works, and inverted roofs etc.

It has excellent adhesion to concrete, brickwork, asphalt, corrugated asbestos and asbestos cement. Contact the Technical Service of our local NCL office regarding any application required not mentioned here.

Advantages

- High elasticity and flexibility – move with structure.
- Excellent adhesion to concrete and mortar. - Fully bonded system.
- Impermeable to water and carbon dioxide. - protects from corrosion of the steel.
- Easy to apply. Single component and low viscosity.
- Excellent crack bridging capacity – even at low temperatures.
- Monolithic – no laps, welds or seams.
- Fast Application - Can be re-coated after only a few hours

Characteristics

Product Composition	Pure Polyurethane
Color	Various color (Grey, Green, Black)
Required Dry film thickness	2.0 mm (Minimum)
Density	1.47 ± 0.05 Kg/L
Solid Content	94 ~ 95 %
Tensile Strength	3.0 ~ 3.3 N/mm ²

Elongation at break	600% ~ 700%
Tear Strength	>12 N/mm ²
Adhesion to concrete	1.2 ~ 1.5 N/mm ²
Hardness (ShoreA)	70
Touch dry (at 25C, 65% R.H)	2 ~ 3 hours
Cure Time	24 hours
VOC Content	less 60 g/L

Application guidelines

New concrete should be properly water cured for at least 14 days.

Concrete substrate should be structurally sound, clean, dry and free from loose particles, oil and other containments. Use NIROSEAL PU (PU sealant) to fill joints or cracks and form fillets to internal corners or penetrations. Priming is required a concrete substrate using NIROGUARD PU Primer.

Before applying the NIROGUARD PU1, Stir the liquid resin with slow speed mechanical mixer until the blend to homogeneous. Apply NIROGUARD PU1 evenly with roller, stiff brush at 1.8 kg/m² to achieve 1.5mm wet film thickness for 2 coats. Recoating time between the two coats should be at least 18 hours this is to allow the 1st coat to be fully cured before apply the 2nd coat. To get a UV Resistance, recommend to use Top coating resin at rate of 0.2 ~ 0.3 kg/m². and, Top Coating resin can prevent Chalking (Powder) problem. NIROGUARD PU1 is self-curing system. Achieved full cured in 24 hours depending on ambient temperatures and humidity.

• Curing Time (1.5mm base)

Temperature		5°C	20°C	30°C
Tacky Free time		24 hours (less)	12 hours (less)	6 hours (less)
Re-Coat time	Min.	2 days	1 day	1 day
	Max.	3 days	2 day	1 day

For best performance:

- The product must not be applied when the temperature is below +10°C or above 30°C.
- Do not mix solvents, sand or other products that could affect the products properties must not beaded..

- Do not apply in more than 0.6mm thickness per layer.
- It is recommended to use a reinforcement mat. If an application without this mat is required, apply three coats of products.

Estimating data

Consumption: Approximately two coats applications required 1.4 to 2.5 kg/m². These consumptions are theoretical and can vary according to the application conditions.

It is essential to carry out representative trials on site to evaluate the exact consumption.

Packaging

22 kg Round metal pail,

Storage and Self life

Keep NIROGUARD PU1 at cool and room temperature (20~30 degrees) ware house.

Not exposure to sun and rain directly.

Minimum 9 months shelf life under proper storage & transportation.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging.

For specific storage advice consult our local NIRMAN CHEMICALS representative.

Health and Safety

For the full health and safety hazard information and how to safely handle and use this product, please make sure that you obtain a copy of the NIRMAN CHEMICALS LIMITED Material Safety Data Sheet (MSDS) from our office or our website.

Note

All Technical Data Sheets are updated on regular basis; it is the user's responsibility, to obtain the most recent issue.

Field services where provided, does not constitute supervisory responsibility, for additional information contact our local NIRMAN CHEMICALS representative.

Disclaimer

Whilst any information contained herein is true, accurate and represents our best knowledge and experience, no warranty is given or implied with any recommendations made by us, our representatives or distributors, as the conditions of use and the competence of any labor involved in the application are beyond our control.



CORPORATE ADDRESS:

Flat: B4, House: 28/B, Road: 3, Banani DOHS, Dhaka - 1213.

FACTORY ADDRESS:

Narsinghar Chor (Amtola Bazar), Noakanda, Polash, Narsingdi.

HOTLINE: +88 02 983 2929

W: www.nirmanchemicals.com

E: contact@nirmanchemicals.com

FB: fb.com/nirmanchemicals

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