



PROVISIONAL PRODUCT DATA SHEET

Non-Yellowing Coating NPU1000

Product Type:

High-Solids Single component polyurethane coating.

Product Description:

NPU1000 is a “state of the art” high performance non-flammable coating which uses automotive grade polyurethane technology to produce a durable, abrasion resistant, chemical resistant and non-yellowing finish.

Principal Uses

- A low VOC alternative to solvent and water based polyurethanes, requiring only one coat application where 2 coats of lower solids alternatives would previously have been required to provide long term protection of epoxy surfaces.
- Abrasion resistant heavy traffic surfaces
- Chemical resistant surfaces

Areas of Application:

- Clear or pigmented top coats for concrete, factory floors, shop floors, aircraft hangars, work shops, printing works
- Drive ways, walk ways, corridors, steps, walls, balconies (waterproofed)
- Timber, MDF, Particle board, Fibro, Plywood, composites and plastics (metals require a separate primer)
- Add Anti-Slip Powder for a variety of Anti-Slip Surfaces

Advantages

- Low odour and non-flammable
- Reduced inventory – multipurpose coating
- excellent wear resistance
- excellent chemical & stain resistance (refer to attached resistance profile)
- excellent scratch resistance
- “Mirror finish” gloss
- excellent adhesion to a variety of substrates
- non yellowing
- Also contains UV absorbers to improve durability and improve substrate colour retention
- Suitable for interior or exterior applications
- can be made anti-slip with the addition of Anti-Slip Particles.
- easy application, no mixing

- Long working time

Limitations

- Thinner, Primer or grinding recommended for low-porosity or densified concrete
- Low Wet slip resistance - Add Anti-Slip Powder for a variety of Anti-Slip Surfaces and R-ratings

Product Characteristics: (see also CRG)

Active Ingredients:

1 pack polyisocyanate (aliphatic polyurea)

Gloss level:

High gloss

Colour:

clear

Mixing ratio by weight A:B:

1 component

Solids content (mixed):

90% w/w

Total VOC

<100 g/Ltr

Viscosity:

450 cPs @cPs approx.

Pot life:

up to 100 mins*

Touch dry 25C:

<4 hour*

Recoat:

6-24 hours

Through dry:

24 hours*

Density:

1.1

Application Temp.:

10°C – 30°C

Odour:

slight

Spread Rate:

1Ltr = 7.5 - 10m²

*Humidity dependent, higher humidity will decrease pot life and drying times

Packaging

5 Litre micro drums, 10L Plastic Drum.

Transport

Unrestricted

Application

1. Preparation

• Surface Preparation on concrete

The surface to be coated must be clean, dry and sound, free from efflorescence, laitance, oils, dust, chalk mildew and any other contaminants. If any of these are present then remove accordingly, either by scraping, sanding or power washing.

Mildew must be removed with an appropriate solution and then the surface must be allowed to dry thoroughly.

Further preparation such as, grinding, shot blasting is essential for optimum adhesion.

An appropriate primer should be used prior to application of NPU1000 (e.g. *Epoxy Primer*)

Alternatively *NPU1000* can be used with addition of *Eco-Reducer* (20% by volume) as a non-flammable penetrating primer on porous surfaces (i.e. pretest a small section to assess adhesion is suitable)

- ***Surface Preparation on timber, plastic or metal substrates.***

Surface must be clean, dry and sound, free from oils, dust, chalk mildew and any other contaminants. If any of these are present then remove accordingly, either by scraping, sanding or power washing. Mildew must be removed with an appropriate solution.

The surface must be dry, as the presence of moisture will catalyse the reaction.

Please ensure adequate adhesion on plastic substrates by performing an adhesion test.

Metal surfaces need to be primed before coating with an appropriate *Primer* – refer to *Tradesmans Technical staff for recommendations.*

2. Application

- Apply *NPU1000* by brush, roller, squeegee or spray.
- Ensure that buckets and application tools are clean and dry before use.
- Avoid over-rolling the roller in the tray or on the floor as this encourages viscosity increase
- Apply *NPU1000* at a rate of 7.5-10 sq.m per litre. For protection of epoxy, one coat of *NPU1000* at 10sq.m per litre will outperform 2 coats of lower solids polyurethanes
- If a textured or anti-slip surface is required apply at 8 sq.m per litre and then sprinkle apply appropriate graded aggregate e.g. *Anti-Slip Aggregate*

- Allow 6 hrs drying then remove excess anti-slip with broom or vacuum
- High Humidity can reduce the available time for consistent application, as well as shortening the drying and cure times.

3. Second Coat?

- A second coat is generally not necessary unless the concrete is very porous and/or thinner is used in the first coat.
- Do not apply second coat outside of recoat window (6-18 hrs). After 18 hours the floor may no longer accept a second coat without the possibility of delamination – sanding is then advised to roughen up the surface and promote inter-coat adhesion.
- Apply *NPU1000* uniformly at a rate of 10 sq.m/Ltr.
- Allow 12 hours cure time before subjection to pedestrian traffic, 24 hrs for vehicular traffic and 2 days before subjecting to chemicals or severe abrasion

Clean Up

- Use *Solvent (Methylated spirit)* to wash all tools immediately following application.

Special decorative finishes

NPU1000 may be used a part of many other decorative finishing systems for interior **and Exterior** applications, including flake flooring. Tradesmans technical staff can provide more detailed instruction upon request.

Storage

Store product between 10°C and 30°C away from direct sunlight. Partly used containers must be sealed tightly when not in use

Safety

Hazardous Products - Recommended PPE:

- Organic vapour respiratory mask
- Solvent resistant gloves
- Safety eye wear
- Appropriate footwear

Consult MSDS for detailed information

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