# NIPPON PAINT PUR LITE FINISH

*Updated Mar'23*

**Nippon Paint PUR Lite Finish** is a two-component, high-build, glossy aliphatic acrylic polyurethane top coat in at atmospheric environment. It provides a durable, good gloss retention and levelling properties with good weathering resistance.

**Product Features:**

- Weathering durability, good colour and gloss retention
- Good resistance to atmospheric exposure conditions
- Good application properties, flow and levelling
- Long recoatability property, can be recoated even after long atmospheric exposure
- Suitable for repainting on aged alkyd topcoat

| Paint Type | Product Type | Finishing | Recommended Substrate | Pack Size |
|---|---|---|---|---|
| Solvent based | Interior / Exterior | Colours (Gloss) | Properly primed steel, galvanized iron, aluminium, metal roofing etc | 5 L (4.5L Base and 0.5L Hardener)<br>20 L (18.0L Base and 2.0L Hardener) |

## Composition

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| Pigment | : Organic and inorganic pigments |
| Binder | : Acrylic polyol and aliphatic polyisocyanate |
| Thinner | : Combination of glycol ether ester and hydrocarbon |

## Technical Data

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| Drying Time (25-30°C) | : Touch Dry : 2.5 hours (Dependent on temperature and humidity)<br>: Hard Dry : 6.0 hours (Dependent on temperature and humidity) |
| Overcoating Time (25-30°C) | : Minimum 8 hours (Dependent on temperature and humidity) |
| Curing Time (25-30°C) | : 7 days (Dependent on temperature and humidity). |
| Typical Thickness | : 50 - 75 μm dry film per coat<br>80 - 125 μm wet film per coat |
| No. of Coats | : 1-2 coats |
| Theoretical Coverage | : 12.6 $m^2$ per litre per coat (for dry film thickness of 50um)<br>: 8.4 $m^2$ per litre per coat (for dry film thickness of 75um) |
| Practical Coverage (40% Loss Factor, as a guideline) | : 7.4 $m^2$/litre (for dry film thickness of 50 microns)<br>5.0 $m^2$/litre (for dry film thickness of 75 microns) |
| Volume Solid | : 63 ± 2% |
| Specific Gravity | : 1.31 (for mixture of base and hardener) |
| Mixing Ratio | : 9 parts by volume of Base to 1 part by volume of Hardener.<br>(*Stir the content of the Base component, continue stirring and gradually add the total contents of the Hardener component, continue stirring until a homogeneous mix is obtained.)* |
| Pot Life (25-30C) | : 4 hours after mixing |
| Shelf Life | : Up to 24 months in tight sealed container<br>**(Subjected to reinspection after exceeding shelf life period)** |

## Application Method

Brush, roller, compressed air spray and airless spray. Preferably use airless spray if a thicker coat is required in one application. Brush, roller, and compressed air spray generally lead to lower film thickness, so more applications may be required to obtain the recommended thickness per coat.

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| | In order to ensure maximum adhesion between coats, it is important to observe that, before recoating, the applied coat is dry and free from any form of contamination. In case it rains or raining is expected, it is advisable not to do any painting. Painting under relative humidity above 85% will adversely affect the subsequent performance of the coating. Condensation occurs during or soon after application and premature early exposure to rain or ponding water could result in color and gloss change.<br><br>The optimum resistance of the coating is only attained after completion of the curing of the paint. Under average atmospheric conditions, it takes about 6 ~ 7 days. Exposure of the applied coating to severe abrasion or chemical and water spillage should therefore be avoided before completion of the curing period, the first two or three days being particularly critical. |
| Thinner | : Nippon Paint PU Recoatable Thinner. For thinning, substitute thinners other than those approved or supplied by Nippon Paint may adversely affect the product performance and void product warranty whether expressed or implied. Thinner should be added after mixing the two components. Adding too much thinner results in reduced sag resistance. Do not tend to further reduce the viscosity after reach pot life. |
| Brush / Roller | : Thin up to 10% by volume of Nippon Paint PU Recoatable Thinner for proper flow-out. Good quality brushes and mohair / short nap rollers should be used with full strokes. Avoid re-brushing. Additional coats may be required to achieve minimum specified film thickness. |
| Compressed Air Spray | : Thin up 15% by volume with Nippon Paint PU Recoatable Thinner |
| Airless Spray | : Thin up to 5% by volume with Nippon Paint PU Recoatable Thinner<br>: Delivery pressure: 140-170 kg/cm$^2$<br>: Tip size: 0.015”-0.017”<br>: Spray Angle: 60° - 70° |

## Recommended Coating System

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|---|---|---|
| **Steel** | | |
| Primer | : Nippon Paint Red Oxide Primer / Nippon Paint EA9 Red Oxide Primer / Nippon Paint 8048 Zinc Phosphate Primer / Nippon Paint NIOZ / Nippon Paint Nippezinc E2 Primer / Nippon Paint Zinc Rich Primer HS | : 1 Coat |
| Intermediate | : Nippon Paint EA9 Finish HB / Nippon Paint 8048 | |
| Top Coat | : Nippon Paint PUR Lite Finish | : 1 Coat<br>: 2 Coats |
| **Aluminium / Galvanized Iron** | | |
| Primer | : Nippon Paint 1K Etching Primer / Nippon Paint Etching Primer 120 / Nippon Paint Galvaprimer / Nippon Paint EA9 Red Oxide Primer / Nippon Paint 8048 Zinc Phosphate Primer | : 1 Coat |
| Top Coat | : Nippon Paint PUR Lite Finish | : 2 Coats |
| **Metal Roofing / Cladding** | | |
| Primer | : Nippon Paint 8048 Zinc Phosphate Primer | : 1 Coat |
| Top Coat | : Nippon Paint PUR Lite Finish | : 2 Coats |
| **Repainting** | | |
| Previous Coating | : Aged alkyd topcoat | : - |
| Topcoat | : Nippon Paint PUR Lite Finish<br>**2 coats to enhance durability performance* | : 1 or 2 Coats* |

## Surface Preparation

**STEEL**

Avoid painting when the environment relative humidity exceeds 85%, or when the surface to be painted is less than 3°C above the dew point. For maximum performance, this product should be applied to a metal surface that has been blast

cleaned to **Sa2.5 or SSPC – SP 10** and suitably primed. This coating is usually applied over a suitable primer, undercoat or build-up coat. This underlying system should be sound and undamaged. The surface to be overcoated must be dry and free from surface contaminants. All wax, oil and grease should be removed by solvent cleaning in accordance with the guidelines complying to **SSPC – SP 1**. Soluble salts, dirt and dust must be removed prior to applying the coating. Dry brushing should be sufficient. A freshwater wash must follow to remove all soluble salts. Overcoating the previous primer/build coat should be done within 6 ~ 7 days but preferably as soon as possible after it has been allowed 16 hours drying or else, it is desirable to roughen it by dry sanding with sandpaper before it is overcoated. This is to ensure proper intercoat adhesion.

**STEEL (REPAINTING)**

Avoid painting when the environment relative humidity exceeds 85%, or when the surface to be painted is less than 3°C above the dew point. The surface to be overcoated must be dry and free from surface contaminants. All wax, oil and grease should be removed by solvent cleaning in accordance with the guidelines complying to **SSPC – SP 1**. Soluble salts, dirt and dust must be removed prior to applying the coating. For maximum performance, this product should be applied to a metal surface that has been lightly sanded prior. Overcoating the previous coat should be done within 6 ~ 7 days but preferably as soon as possible after it has been allowed 16 hours drying or else, it is desirable to roughen it by dry sanding with sandpaper before it is overcoated. This is to ensure proper intercoat adhesion.

## Cleaning

Cleaning Solvent : Nippon Paint PU Recoatable Thinner. Clean up equipment with thinner immediately after use.

## Environmental Conditions During Application

- Do not apply when the relative humidity exceeds 85% or when the surface to be coated is less than 3°C above the dew point.
- Do not apply at temperature below 7°C. If not, drying and overcoating times will be considerably extended.
- During application of the paint, naked flame, welding operations and smoking should not be allowed and good ventilation is necessary.

## Safety Precautions

- Keep container tightly closed and keep out of reach children or away from food and drink.
- Ensure good ventilation during application and drying.
- When applying paint, it is advisable to wear eye protection.
- In case of contact with eye, rinse with plenty of water immediately and seek medical advice.
- Remove splashes from skin by using soap or water.
- Paint must always be stored in a cool place.
- When transporting paint, care must be taken. Always keep container in a secure upright position.
- Dispose any paint waste in accordance with the appropriate Environment Quality Regulations.

## Note

* Theoretical Coverage is based on a mathematical formula and does not consider Loss Factor.

$$\left[\frac{Volume\ Solid\ \%\ x\ 10}{Dry\ Film\ Thickness\ (\mu)}\right] = \mathrm{m^2/lit/coat}$$

This theoretical coverage rate has been calculated from the volume solids of the material and is related to the amount of coating applied onto a perfectly smooth surface without wastage. For a practical coverage rate, due allowance should be made for atmospheric conditions, surface roughness, geometry of the article being coated, the skill of applicator, method of application etc. when estimating quantities required for a particular job.

The above information is given to the best of our knowledge based on laboratory tests and practical experience.
However, since we cannot anticipate or control the many conditions under which our products may be used, we can only guarantee the quality of the product itself.
We reserve the right to alter the given without prior notice.