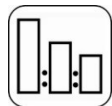


## Description

nax Superio 221 2K clear is an acrylic urethane clear coat. It is applied on metallic or mica colour to providing excellent gloss hold out and appearance. It is ideal for all spray applications from spot repair to overall refinishing.

## Suitable Substrates

1K Solvent borne base coat system  
All Nippon Paint 1K basecoat systems



2 nax Superio 221 2K Clear  
1 nax Superio 221 Hardener  
40-50% nax Thinners



### Spray-gun setup:

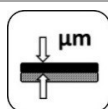
Gravity fed | 1.3-1.4 mm

### Application Pressure:

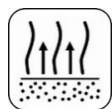
1.7-2.2 bar | 28-30 psi | At spray-gun air inlet  
HVLP max 0.6-0.7 bar (8-10 psi) at the air cap



2 coats



20-30 μm /coat



### Between coats:

5 - 10 minutes at | 20°C | 70°F

### Before 60°C (140°F) baking:

10 minutes at | 20°C | 70°F



|               | 20°C (70°F) | 30°C (86°F) | 40°C (100°F) | 60°C (140°F)         | Infra-Red |
|---------------|-------------|-------------|--------------|----------------------|-----------|
| Dust dry      | 20-25 min.  | 15-20 min.  | 10-15 min.   | -                    | n/a       |
| Dry to handle | 8-9 hours   | 6-7 hrs.    | 4-5 hrs.     | 30 minutes           | 4+8 min.  |
| Dry to polish | 11-12 hours | 9- 10hrs.   | 6-7 hrs.     | 2 hr. after cooldown |           |



|                          |         |
|--------------------------|---------|
| nax Superio 221 2K Clear | 4 years |
| nax Superio 221 Hardener | 4 years |
| nax Thinners             | 4 years |



► The VOC content of this product in ready to use form is maximum 610 g/liter



## Use suitable respiratory protection

Nippon Paint Automotive Refinishes recommends the use of fresh air supply respirator.

For detailed information read entire TDS

### Description

nax Superio 221 2K clear is an acrylic urethane clear coat. It is applied on metallic or mica colour to providing excellent gloss hold out and appearance. It is ideal for all spray applications from spot repair to overall refinishing.

### Suitable Substrates

Existing finishes with the exception of thermoplastic acrylic finishes  
All Nippon Paint preparatory products, with the exception of acid containing etch primer.

**Notes:** Follow recommended flash off and re-coating time of the basecoat.

### Product and Additives

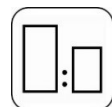
|                  |                           |                       |         |
|------------------|---------------------------|-----------------------|---------|
| <b>Product</b>   | nax Superio 221 2K Clear  | Acrylic Polyol        |         |
| <b>Hardeners</b> | nax Superio 221 Hardener  | Poly-isocyanate resin |         |
| <b>Thinners</b>  | nax 10 Fast Thinner       | Blend of solvents     | 5-20°C  |
|                  | nax 20 Medium Thinner     | Blend of solvents     | 20-35°C |
|                  | nax 30 Slow Thinner       | Blend of solvents     | 35-45°C |
|                  | nax 40 Extra Slow Thinner | Blend of solvents     | 35-50°C |
| <b>Additives</b> | nax Softener              |                       |         |

### Flexible Parts

| Type of Plastic          | Flexible | Soft |           |
|--------------------------|----------|------|-----------|
| nax Superio 221 2K Clear | 100      | 100  | By volume |
| nax Softener             | 10       | 5    | By volume |

**Notes:** Hard plastic requires no softener.  
For plastic type information check nax Softener TDS (LAR.08.012)  
Stir well after adding the additive

### Mixing



|        |                          |
|--------|--------------------------|
| 2      | nax Superio 221 2K Clear |
| 1      | nax Superio 221 Hardener |
| 20-30% | nax Thinners             |

| Thinner Selection |        |         |        |
|-------------------|--------|---------|--------|
|                   | 5-20°C | 20-35°C | ≥ 35°C |
| 1-2 panels        | 10     | 20      | 30     |
| 3-5 panels        | 20     | 20      | 30     |
| >5 panels         | 30     | 30      | 40     |

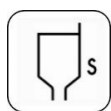
**Notes:** Above ratio is for both normal and flexible system  
Stir after each added component

### Mixing (by weight) (2:1:40%)

| RFU (ml) | nax Superio 221 2K Clear<br>2:1 (gr) | nax Superio 221 Hardener<br>(gr) | nax Thinners (gr) |
|----------|--------------------------------------|----------------------------------|-------------------|
| 100      | 53                                   | 26                               | 19                |
| 200      | 105                                  | 52                               | 37                |
| 250      | 132                                  | 64                               | 46                |
| 300      | 158                                  | 77                               | 56                |
| 400      | 211                                  | 103                              | 74                |
| 500      | 263                                  | 129                              | 93                |
| 750      | 395                                  | 193                              | 139               |
| 1000     | 526                                  | 258                              | 185               |

**Mixing (by weight) (2:1:50%)**

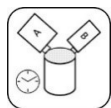
| RFU (ml) | nax Superio 221 2K Clear<br>2:1 (gr) | nax Superio 221 Hardener<br>(gr) | nax Thinners (gr) |
|----------|--------------------------------------|----------------------------------|-------------------|
| 100      | 50                                   | 25                               | 22                |
| 200      | 100                                  | 49                               | 44                |
| 250      | 125                                  | 61                               | 55                |
| 300      | 150                                  | 74                               | 66                |
| 400      | 200                                  | 98                               | 88                |
| 500      | 250                                  | 123                              | 110               |
| 750      | 375                                  | 184                              | 165               |
| 1000     | 500                                  | 245                              | 220               |

**Viscosity (DIN 4 Cup)**


- ▶ Standard
- ▶ Flexible

**20°C(70°F)      30°C(86°F)**

16-18 sec      13-16 sec  
16-18 sec      13-16 sec

**Pot Life**


- ▶ 20% thinner
- ▶ 30% thinner

**20°C(70°F)      30°C(86°F)      40°C(100°F)**

2½ hrs.      2 hrs.      1 hrs.  
3½ hrs.      2½ hrs.      1½ hrs.

**Spray gun set-up / application pressure**

**Spray-gun type**

- ▶ LVLP
- ▶ HVLP

**Spray-gun type**

Gravity  
Gravity

**Nozzle size**

1.3-1.4 mm  
1.3-1.4 mm

**Application pressure**

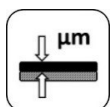
1.7-2.2 bar at the spray gun air inlet  
(HVLP: max 0.6-0.7 bar at the air cap)

**Application**

**Standard Application**

- ▶ Apply one medium coat, then allow to flash for 5-10 minutes.
- ▶ Apply the 2<sup>nd</sup> and if required a 3<sup>rd</sup> wet coats allowing 5-10 minutes between coats.

**Notes:** Flash-off time depends on ambient temperature, applied layer thickness and airflow.

**Film thickness**


- ▶ All

Using the recommended application technique      20-30 μm / coat

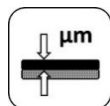
**Drying time**

|                                                                                   | Dust dry      | 20°C(70°F)   | 30°C(86°F)   | 40°C(100°F) | 60°C(140°F)           | Infra           |
|-----------------------------------------------------------------------------------|---------------|--------------|--------------|-------------|-----------------------|-----------------|
|  | ► Standard    | 20-25 min.   | 15-20 min.   | 10-15 min.  | -                     |                 |
|                                                                                   | ► Flexible    | 25-30 min.   | 20-25min.    | 15-20 min.  | -                     |                 |
|                                                                                   | Dry to handle |              |              |             |                       |                 |
|                                                                                   | ► Standard    | 8 - 9 hrs.   | 6 - 7 hrs.   | 4 - 5 hrs.  | 30 min                | 4+8 min         |
|                                                                                   | ► Flexible    | 9 - 10 hrs.  | 7 - 8 hrs.   | 5 - 6 hrs.  | 45 min.               | 4+8 min         |
|                                                                                   | Dry to polish |              |              |             |                       |                 |
|                                                                                   | ► Standard    | 11 - 12 hrs. | 9 - 10 hrs.  | 6 - 7 hrs.  | 2hrs. after cool down | After cool down |
|                                                                                   | ► Flexible    | 12 - 13 hrs. | 10 - 11 hrs. | 7 -8 hrs.   |                       |                 |

**Notes:** Indicated drying times are panel temperatures. Oven temperature should be set 10 °C higher.  
Allow 10 minutes flash off prior to Infra-Red drying.  
The panel must not reach a temperature above 100°C (210°F) while curing.  
Following the drying cycle at 60°C (140°F) object temperature, allow product to completely cool down to ambient temperature.  
Using fast hardener at high temperatures can decrease the gloss.

**Polishing**


Dust and minor imperfections can be polished out after indicated air-dry times, or after a two hour cool down time following the full bake at 60°C object temperature or IR drying. Carefully sand out dust particles and restore the surface according polishing recommendations.

**Coverage**


By using the recommended application, the theoretical material coverage is:  
► ±7 m<sup>2</sup>/liter RTS mixture at 50 µm

**Notes:** The practical material usage depends on many factors i.e. shape of the object, roughness of the surface, application techniques, pressure and application circumstances.

**Equipment cleaning**

Solvent borne gun cleaners

**Shelf life**


|                              |             |
|------------------------------|-------------|
| nax Superio 221 2K Clear     | 4 years     |
| nax Superio 221 Hardener     | 4 years     |
| nax Thinners                 | 4 years     |
| Minimum storage temperature: | 5°C (41°F)  |
| Maximum storage temperature: | 35°C (95°F) |

**Notes:** Product shelf-life is determined when products are stored unopened at 20°C (70°F). Avoid extreme temperature fluctuation.

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