

## Description

nax E<sup>3</sup> WB is a VOC compliant latest innovation waterborne base coat system designed to duplicate OEM colours in automotive refinishes. Delivers the fastest easy to control single visit wet bed spray process application, providing excellent hiding power with superb finish.

nax E<sup>3</sup> WB carries 3 concepts: Easy /Exciting /Ecology.

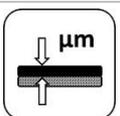
## Suitable Substrates

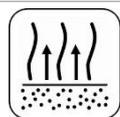
Existing finishes with the exception of thermoplastic acrylic finishes

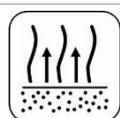
All nax Pro LV and nax Premila primer surfacers/fillers, with the exception of acid containing etch primers.

	100	nax E <sup>3</sup> WB
	10-30	nax E <sup>3</sup> WB R Diluents

	<b>Spray-gun setup:</b>		<b>Application Pressure:</b>		
	Gravity fed	1.3-1.4 mm	1.5-2.0 bar	28-30 psi	At spray-gun air inlet
			HVLP max 0.6-0.7 bar (8-10 psi) at the air cap		

	Solid: 2-3 single coats		20-25 µm	Solid
	Effect: Double header + drop-coat		15-25 µm	Effect

	<b>Between coats:</b>			
	Until completely matt at	25°C	75°F	

	<b>Before re-coat with clear-coat:</b>			<b>Re-coat within:</b>		
	±10 minutes at	25°C	75°F	24 hours at	25°C	75°F

	<b>Re – coating</b>
	With all nax Pro LV and nax Premila clearcoats
	With nax Multi Eco 3:1 GL Clear, and nax Crystal Mirror Image Clear 2K

	nax E <sup>3</sup> WB Solid toners/Diluents	4 years
	nax E <sup>3</sup> WB Pear and SC toners/binders	3 years
	nax E <sup>3</sup> WB Metallic toners	2 years

	<b>2004/42/IIb(d)(420)415</b>		
	▶ The EU limit value for this product (product category: IIB.d) in ready to use form is max	420	g/liter
	▶ The VOC content of this product in ready to use form is maximum	415	

	<b>Use suitable respiratory protection</b>
	Nippon Paint Automotive Refinishes recommends the use of fresh air supply respirator.

For detailed information read entire TDS

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### Suitable Substrates

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### Product and Additives

<b>Product</b>	nax E <sup>3</sup> WB Toners		
	nax E <sup>3</sup> WB 911 S-Binder	Polyacrylic polyurethane paint	For solid colors
	nax E <sup>3</sup> WB 911 M-Binder	Polyacrylic polyurethane paint	For effect colors
	nax E <sup>3</sup> WB 950 Metal Fix	Polyacrylic polyurethane paint	For effect colors
<b>Diluents</b>	nax E <sup>3</sup> WB R20 Standard Diluent	Polyacrylic polyurethane liquid	See diluent selection table
	nax E <sup>3</sup> WB R30 Slow Diluent	Polyacrylic polyurethane liquid	See diluent selection table
	nax E <sup>3</sup> WB R40 Extra Slow Diluent	Polyacrylic polyurethane liquid	See diluent selection table
	nax E <sup>3</sup> WB R50 HT/LH Diluent	Polyacrylic polyurethane liquid	See diluent selection table
<b>Additives</b>	nax E <sup>3</sup> WB 280 Adjusting Clear	Polyacrylic polyurethane paint	Blending undercoat
	nax E <sup>3</sup> WB Hardener	Polyisocyanate hardener	Basecoat hardener
<b>Others</b>	nax E <sup>3</sup> WB Silicone Off	Solvent mixture liquid	Surface cleaner
	nax E <sup>3</sup> WB Gun Cleaner	Solvent mixture liquid	Gun wash liquid

### Final surface preparation



- ▶ Finishing dry sanding step P500
- ▶ Initial dry sanding step may be executed with a coarser grit: P320/P400
- ▶ For spot repair, finish the basecoat blending area with: P500



- ▶ Finishing wet sanding steps: P1000
- ▶ Initial dry sanding step may be executed with: P320/P400
- ▶ Initial wet sanding step may be executed with: P800
- ▶ For spot repair, finish the blending area with: P1000



- ▶ Prior to WB basecoat application degrease the surface using nax E<sup>3</sup> WB Degreaser.
- ▶ Use clean quality rags or wiping towels, one for wetting and one for drying.
- ▶ Apply sufficient degreaser to keep the surface wet and wipe degreaser off before it can evaporate

**Notes:**

1. Respect 100 grit maximum jump in dry sanding steps and 200 grit maximum jump in wet sanding steps.
2. Use guide coat to control sanding.

### Mixing



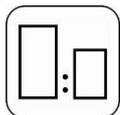
▶ **Toner Use**

For optimum pour viscosity gently agitate toners before adding to formula mixing.



▶ **Color Mix**

Must be stirred thoroughly directly after mixing the formula.



Solid Colors		Effect Colors		Indicated mixing ratios are by volume
Standard	White	Pearl	Metallic	
100	100	100	100	nax E <sup>3</sup> WB (mixed formula)
20*- 30	10	20	30	nax E <sup>3</sup> WB R Diluents *low hiding colors

**Notes:**

1. To improve recoating properties, stone chip resistance, adhesion properties and total system robustness it is advised to add 5% (by volume) nax E<sup>3</sup> WB Hardener to basecoat prior to adding the diluents. After adding hardener mix well, then mix with diluent as indicated in the table.
2. For optimum paint filtering it is recommended to use a 125µ waterproof strainer.
3. Avoid contact between waterborne and solvent-borne products.

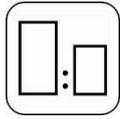
**Diluent Selection**



RH	< 35°C	> 35°C
20 – 60%	R30	R40
< 20%	R40	R50
> 60%	R20	R30

- Notes:**
- Optimal application condition is 25°C and 20-60 % relative humidity.
  - Applying basecoat below 20°C, will negatively affect application and drying performance.

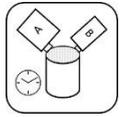
**Under clear**



100	max E <sup>3</sup> WB 280 Adjusting Clear
40	max E <sup>3</sup> WB R Diluents

- Notes:**
- In case the use of underclear is needed, apply one closed coat in the fade out area.

**Pot Life**



	25°C
▶ With only binders added	90 days
▶ With added diluents	24 hours

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



Spray-gun type	Spray-gun type	Nozzle size	Application pressure
▶ LVLP	Gravity	1.3-1.4 mm	1.5-2.0 bar at the spray gun air inlet
▶ HVLP	Gravity	1.3-1.4 mm	(HVLP: max 0.6-0.7 bar at the air cap)

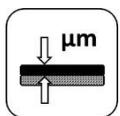
**Application**



- Solid colors**
  - ▶ Apply 2 medium coats, then flash off till matt using air accelerator
  - ▶ In case of low hiding colors may apply a 3<sup>rd</sup> coat, then flash off till matt using air accelerator
- Effect colors (metallic & pearl)**
  - ▶ Apply a closed wet coat directly followed by a medium coat, then flash off till matt using air accelerator
  - ▶ Apply a final drop-coat for optimal metallic orientation using 1.2 - 1.4 bar (17-20psi) at the gun inlet. Apply the drop coat with full trigger and increase the distance to 30 cm (12 in).
  - ▶ When required, for pearl colours apply a 3<sup>rd</sup> coat, then flash off till matt using air accelerator. Then apply a drop coat.
- Spot Repair**
  - ▶ Apply one coat of underclear in to the fade out area, staying ±10 cm away from the farther edge of the panel.
  - ▶ Directly after, apply medium coats of color until reaching opacity using lower pressure with application extending into the underclear area, then allow to flash-off till matt.
  - ▶ In case of effect colors apply a final drop coat (metallic orientation coat) by increasing the spray gun distance at a 1.0-1.4 bar application pressure.

- Notes:**
- Optimal application temperature is 25°C, applying basecoat below this temperature will negatively affect drying performance.
  - Dry for a minimum of 10 minutes (max. 24 hours) at 25°C (75°F) prior to clearcoat application.
  - Airflow and humidity influences the flash off of waterborne basecoat and can be minimized by using air accelerator equipment.
  - Optimal position of air accelerator is 0.7- 1 meter distance and in a 30 - 45° angel to the surface.
  - When heat is used for flash off, prior to proceeding application do allow the object to cool back to application temperature.

**Film thickness**



Colors		
▶ Solid	Using the recommended application technique	20-25 µm
▶ Effect	Using the recommended application technique	15-25 µm
❖ The total dry layer thickness should never exceed 30µm.		

### De-nibbing and taping



Following a ±20 minutes flash off at 25°C (75°F) with the use of air accelerators, nax E<sup>3</sup> WB can be de-nibbed or tapped for multi-color application.

For minor defects (e.g. dust) using P1000 or P1500 sanding paper, with light pressure while applying air to the surface. Temperature increase in combination with air acceleration helps flash off, and following it requires the object to cool down to ambient temperature prior to de-nibbing or taping.

### Re-coating time



Following a ±10 minutes flash off at 25°C (75°F) with the use of air accelerators, and within 24 hours, nax E<sup>3</sup> WB can be recoated with clearcoat.

Temperature increase in combination with air acceleration helps flash off, and following it requires the object to cool down to ambient temperature prior to clearcoat application.

To avoid any later system performance issues, always apply clearcoat following the flash off.

### Re-coating



- ▶ All nax Pro LV Clearcoats
- ▶ All nax Premila Clearcoats
- ▶ nax Multi Eco (3+1) GL Clear
- ▶ nax Crystal 9905 Mirror Image Clear

### Coverage

By using the recommended application, the theoretical material coverage is:

- ▶ 6-15 m<sup>2</sup>/liter RTS mixture at 12 -20 µm DFT

#### 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

Water borne guncleaners (dry spray gun after cleaning)

### Solvent Content



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### Shelflife



nax E<sup>3</sup> WB Solid toners/Diluents 4 years

nax E<sup>3</sup> WB Pear and SC toners/binders 3 year

nax E<sup>3</sup> WB Metallic toners 2 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.**

--- Local organization address with phone number ---

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