



# PDS N5.12

## September 2017

### NEXA AUTOCOLOR® 2K® Tinted Mid-Coat Process

#### PRODUCT DESCRIPTION

The NEXA AUTOCOLOR® 2K® Tinted Mid-Coats are formulated with 2K Mixing Bases to match OEM colors.

Tinted Mid-Coats used in 3 or 4 stage topcoats have been introduced to give new brighter colors and also to enhance the durability of solid color finishes. These mid-coats contain quantities of highly dispersed pigments.

As car manufacturers move to more exotic finishes and higher quality vehicles, clear mid-coat technology has been introduced into the OEM painting process.

Products	
P190-643	HS Clearcoat
P190-6330	HS Production Clearcoat
P190-6100	Fast HS Clearcoat
P190-5520	Clearcoat
P190-1002	Basecoat Blender
SWX350	H <sub>2</sub> O-SO-CLEAN® Waterborne Pre-Cleaner
SX1002	ONECHOICE® Sanding Paste
P190-T**	Tinted Clear Mixes

THESE PRODUCTS ARE FOR PROFESSIONAL USE ONLY

# Tinted Mid-Coat

## Process

### SUBSTRATES

P190-T\*\* Tinted Mid-Coat mixes should only be applied over *Nexa Autocolor 2K Basecoats* in accordance with specific recommendations for use on repairs.

### IDENTIFYING AND MIXING 2K TINTED MID-COAT

Where a basecoat color requires a tinted mid-coat, this is specified in the formula for the basecoat color. Each tinted mid-coat formulation is classified by a reference number of the type P190-T\*\* (eg. P190-T05). The tinted mid-coat formulation is then listed below the color formula under this reference. If the mix of tinted mid-coat is a 2K P190-xxxx Clearcoat, it must be activated and thinned according to the specific 2K PDS. If P190-1002 is used as a mid-coat, the mix ratio is 1 : 1. P190-1002 is intended for use in tinted mid-coat color formulations and is not to be used in 3 stage pearl formulas as a replacement for P192-5600 and P190-376 mixing clears.

### REPAIR PROCESS

Shown below is the repair system to give a match to OE finish.

<b>1 or 2 coats*</b>	<i>Clearcoat Layer</i>
<b>1 to 3 coats</b>	<i>P190-T** Tinted Mid-Coat</i>
<b>2 to 3 coats</b>	<i>P422-xxxx Basecoat</i>
	<i>2K Priming System</i>
	<i>OEM Substrate</i>

The final color is produced from the combination of the P433– 2K Basecoat followed by the tinted mid-coat. A final coat of Clearcoat (untinted) is necessary for maximum durability, gloss and protection of color of this premium finish.

\*When P190-1002 is used, two coats of topcoat clear are required for durability.

# Tinted Mid-Coat

## Process

MIX RATIO	2K Clearcoat		2K Basecoat Blender	
	 	<b>P190-643</b> See PDS 5.9.1 <b>P190-6330</b> See PDS 6.3.1 <b>P190-6100</b> See PDS 6.30 <b>P190-5520</b> See PDS 5.11	<b>Tinted Mid-Coat</b> <b>P190-1002</b> 1 Part <b>P850-16xx</b> 1 Part	<b>Wet Bed</b> <b>P190-1002</b> 1 Part <b>P850-16xx</b> 2 Parts
		(Optional tinted mid-coat activation*) Mix ratio 10 : 1 : 11 with P210-796 Hardener *Wet bed does not require activation		
<b>POTLIFE</b> 	See product data sheet for specific 2K Clearcoat information	Tinted Mid-Coat 1 : 1 Wet Bed 1 : 2 Optional 10 : 1 : 11	Indefinite Indefinite 6 - 8 hours	
<b>SPRAYGUN &amp; AIR PRESSURE</b>  HVLP	<b>Fluid Tip:</b> 1.4 - 1.8 mm <b>HVLP:</b> Maximum of 10 PSI cap pressure <b>Compliant:</b> 29 - 40 PSI at the gun  For best overall results, refer to the spray gun manufacturer's recommendation for optimum inlet air pressures.			
<b>APPLICATION</b> 	<b>Tinted Clear Mid-Coat</b> Normally 2 to 3 coats will be required when used as a tinted mid-coat. Refer to sprayout to determine the exact number of coats applied to give proper color alignment.	<b>Wet Bed / Mid-Coat</b> <b>Wet Bed</b> Apply 1 light coat to the repair and blend panels.  <b>Mid-Coat</b> Normally 2 to 3 coats will be required when used as a tinted mid-coat. Refer to sprayout to determine the exact number of coats applied to give proper color alignment.		
<b>DRY TIME</b> 	Refer to specific product data sheet for flash and dry times.	<b>Wet Bed</b> 5 - 10 minutes before applying 2K Basecoat color.  <b>Mid-Coat</b> 5 - 10 minutes between coats and 15 - 20 minutes before applying 2K clearcoat.		
<b>CLEARCOAT</b> 	Apply <b>one</b> coat of 2K Urethane Clearcoat edge to edge on all refinish panels.	Apply <b>two</b> coats of 2K Urethane Clearcoat edge to edge on all refinish panels.		

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### DIRT REMOVAL AND POLISHING

Polishing is not normally required as Clearcoats have a full gloss finish. However, if dirt is a problem, de-nib with P1500 or finer wet then polish by hand or machine. For optimum appearance follow with a finishing polish.

Polishing is easiest within 1 day of “into service” drying times.

### PAINTING PLASTICS

When painting flexible plastic, it **is** necessary to enhance the flexibility of 2K Clearcoat P190-xxxx with the addition of P100-2020 Flexible Additive. It must be flexed when used as a tinted mid-coat layer and as a topcoat clear. Refer to PDS N7.1 Plastic Painting Process.

When using P190-1002 Basecoat Blender as a tinted mid-coat, it is not necessary to add flexible additive however the final coats of the 2K topcoat clear P190-xxxx **will** require the addition of flexible additive.

### PROCESS NOTES

#### A. Color Matching Check

Prior to commencing a repair with tinted clear, it is strongly recommended that a color check is carried out to ensure that an accurate match is achieved by following the steps below.

1. Look up the Motor Manufacturer’s code in the color register and refer to the *Nexa Autocolor 2K* formula to identify the *Nexa Autocolor* basecoat and tinted mid-coat formulations.
2. Apply the 2K Basecoat layer to several test panels, spraying to opacity (normally 2 to 3 coats).
3. Ensure that the tinted mid-coat is mixed well before use. Apply 1 to 3 coats of tinted mid-coat to successive panels. Allow to flash for 5-15 minutes before applying a final coat of un-tinted 2K Clearcoat P190-xxxx or P190-1002 Basecoat Blender\*.
4. Identify the number of coats of tinted mid-coat required to achieve the most accurate match by comparison of the color test panels with the vehicle.

\*If using P190-1002 as a clearcoat for test panels, it is recommended that after the color has been verified, a single coat of activated 2K topcoat clear P190-xxxx is applied. P190-1002 will not retain a high level of gloss therefore it will not be a good topcoat clear for sprayouts which are to be retained for future color verification.

## Tinted Mid-Coat

### Process

#### PROCESS NOTES

##### B. Panel Repair Process

1. Undertake normal panel preparation and priming procedure as outlined in relevant undercoat PDS.
2. Apply 2K Basecoat layer to opacity covering the primed repair area. Allow to dry for 15 - 20 minutes. Refer to *Nexa Autocolor 2K PDS N5.3.1* for details of basecoat application.
3. Any dirt nibs or defects may be removed at this stage by light de-nibbing. Do not use compounds or polishes. Take care to avoid sanding through the edge of the panel, otherwise further basecoat must be applied.
4. Apply the tinted mid-coat. The number of coats should be the same as the number determined at the colormatch checking stage.
5. Apply one coat\* of 2K Clearcoat P190-xxxx un-tinted as described in the appropriate 2K PDS.

\* When P190-1002 is used as the mid-coat layer, two coats of P190-xxxx topcoat clear are required for durability.

#### PROCESS NOTES

##### C. Fade-Out Repair

1. For full details of basecoat fade-out techniques, refer to 2K PDS N7.3 "Blending Techniques".
2. Prepare the areas surrounding the repair using an Ultrafine scuff pad with *OneChoice SX1002* Sanding Paste. Clean with SWX350 *H<sub>2</sub>O-So-Clean* Waterborne Pre Cleaner using one clean white rag for applying and another for removing. Tack off the repair area before spraying.
3. Apply the 2K Basecoat to cover the repaired area, applying 2 - 3 coats and extending into the surrounding area with each successive coat. Allow to dry 15 - 20 minutes.
4. Apply tinted mid-coat carefully over the basecoated area, applying the number of coats determined from the color matching check. Gradually fade out the mid-coat into the surrounding areas. This is important as not to generate a defined blending edge which may appear as a dark line or halo. Allow 5 - 10 minutes flash off between coats.
5. Apply one coat\* of 2K Clearcoat P190-xxxx over the entire repair panel.

\*When P190-1002 is used as the mid-coat layer, **two** coats of topcoat clear are required for durability.

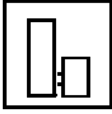

## Tinted Mid-Coat

# GENERAL PROCESS NOTES

## Additional Uses for P190-1002

Not only can P190-1002 be used as a tinted mid-coat, it may also be used as a wet bed and a blending aid. The charts below show the mix ratio for the additional uses of Basecoat Blender.

### P190-1002 Basecoat Blender

<p><b>MIX RATIO</b></p> 	<p>P190-1002    1 Part P850-16xx    2 Parts</p>	<p><b>Wet Bed</b></p> <p>P190-1002 may be used as a “wet bed” on blend and repair panels to aid in the application and appearance of high metallic or pearl colors. Apply a single light coat to the repair and blend panel, allow 5 - 10 minutes flash time before applying P422 2K Basecoat color.</p>
<p><b>POT LIFE</b></p> 	<p>Indefinite</p>	<p><b>Blending Additive</b></p> <p>Under certain conditions, P190-1002 mixed at 1 : 2 with P850-16xx thinner may be added to ready to spray 2K high metallic and pearl basecoat colors at 10% (10 : 1) to improve application and metallic control.</p> <p><b>Blend Check</b></p> <p>P190-1002 may be used as a “Blend Checker” for verifying the blend edge appearance of 2K Basecoat prior to clearcoating. Apply a single medium coat to the blend edge to verify the appearance. If it is not acceptable, allow a 5 minute flash and apply additional basecoat to improve the appearance, re-check, allow to flash and then apply clearcoat.</p>

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## Tinted Mid-Coat RTS Combinations

	Tinted* Mid-Coat	Tinted* Mid-Coat w/ Activator	Wet Bed
Combination	P190-1002 : P850-169x	P190-1002 : P210-796 : P850-169x	P190-1002 : P850-169x
Volume Ratio	1 : 1	10 : 1 : 11	1 : 2
Applicable Use Category	Multi-stage layer	Multi-stage layer	Specialty Ctg. - Uniform Finish Blender
VOC Regulatory (g/L) (less water, less exempts)	703 - 712	701 - 709	745 - 756
VOC Regulatory (lbs/Gal) (less water, less exempts)	5.87 - 5.94	5.85 - 5.92	6.22 - 6.31
Solids vol. %	13.7	14.1	9.1
Solids wt. %	16.4 - 16.5	17.1 - 17.2	11.3 - 11.4
Sq. Ft. Coverage / US Gal. 1 mil at 100% transfer efficiency	220	226	146
*Values determined without variable color contribution			

### HEALTH AND SAFETY

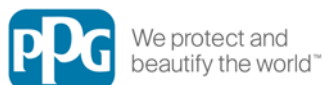
See Safety Data Sheet and Labels for additional safety information and handling instructions.

- The contents of this package may have to be blended with other components before the product can be used. Before opening the packages, be sure you understand the warning messages on the labels and SDSs of all the components since the mixture will have the hazards of all of its parts.
- Improper handling and use, for example, poor spray technique, inadequate engineering controls and/or lack of proper Personal Protective Equipment (PPE), may result in hazardous conditions or injury.
- Follow spray equipment manufacturer's instructions to prevent personal injury or fire.
- Provide adequate ventilation for health and fire hazard control.
- Follow company policy, product SDS and respirator manufacturer's recommendations for selection and proper use of respiratory protection. Be sure employees are adequately trained on the safe use of respirators per company and regulatory requirements.
- Wear appropriate PPE such as eye and skin protection. In the event of injury, see first aid procedures on SDS.
- Always observe all applicable precautions and follow good safety and hygiene practices.

### EMERGENCY MEDICAL OR SPILL CONTROL INFORMATION (412) 434-4515; IN CANADA (514) 645-1320

Materials described are designed for application by professional, trained personnel using proper equipment and are not intended for sale to the public. Products mentioned may be hazardous and should only be used according to direction, while observing precautions and warning statement listed on label. Statement and methods described are based upon the best information and practices known to PPG Industries. Procedures for applications mentioned are suggestions only and are not to be construed as representations or warranties as to performance, results or fitness for any intended use, nor does PPG Industries warrant freedom from patent infringement in the use of any formula or process set forth herein.

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