



PDS N5.12

October 2005

TINTED MID-COAT PROCESS

PRODUCT DESCRIPTION

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 high specification and higher quality vehicles, clear midcoat technology has been introduced into the OEM painting process.

TINTED MID-COAT

PRODUCTS

<i>P190-643</i>	<i>HS Clearcoat</i>	<i>PDS 5.9.1</i>
<i>P190-6330</i>	<i>HS Production Clearcoat</i>	<i>PDS 6.3.1</i>
<i>P190-6100</i>	<i>Fast HS Clearcoat</i>	<i>PDS 6.30</i>
<i>P190-5520</i>	<i>Clearcoat</i>	<i>PDS 5.11</i>
<i>P190-1002</i>	<i>Basecoat Blender</i>	<i>PDS 5.12</i>
<i>P190-T**</i>	<i>Tinted Clear Mixes</i>	

***Note: For information on Nexa Autocolor Clearcoats,
refer to specific product data sheet.***

TINTED MID-COAT

SUBSTRATES

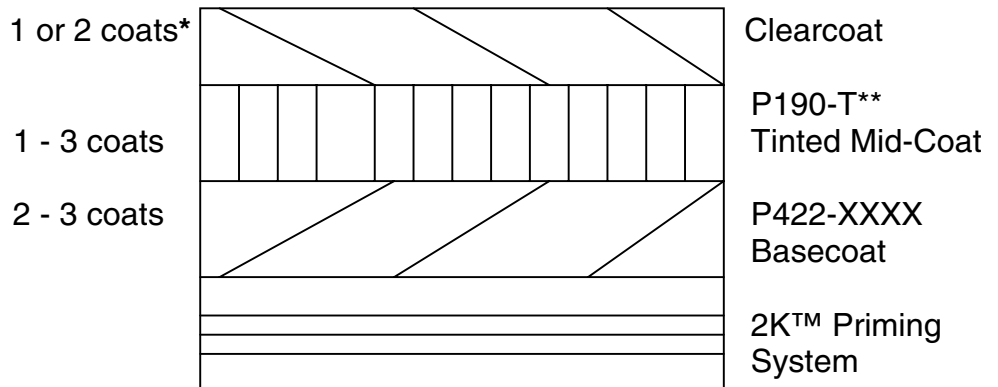
P190-T** Tinted mid-coat mixes should only be applied over Nexa Autocolor 2K™ Basecoats in accordance with specific recommendations for use on repairs.

IDENTIFYING AND MIXING 2K™ TINTED MIDCOAT

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 can be found on page 7 of this data sheet.

REPAIR PROCESS





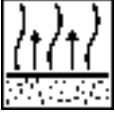

Shown below is the repair system to give a match to OE finish.



The final color is produced from the combination of the P422-2K™ 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.

PROCESS

MIX RATIO	2K™ Clearcoats	2K™ Basecoat Blender
	<p>P190-643 See PDS 5.9.1 P190-6330 See PDS 6.3.1 P190-6100 See PDS 6.30 P190-5520 See PDS 5.11</p>	<p>P190-1002 1 part P850-16XX 1 part</p>
POTLIFE 	See product data sheet for specific 2K™ Clearcoat information.	Indefinite
SPRAY GUN & AIR PRESSURE 	<p>Siphon: 1.4-1.8mm (.055" - .070") 45-55 psi at the gun</p> <p>Gravity: 1.3-1.6mm (.050" - .063") 45-50 psi at the gun</p> <p>HLVP: 0.8-1.5mm (.031" - .059") Max 10 psi cap press. 3-8 psi fluid press (pressurized cup)</p> <p>(HLVP: Refer to gun manufacturer's recommendations for required inlet pressure.)</p>	
APPLICATION 	<p>Tinted Clear Mid-Coat</p> <p>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 with give proper color alignment.</p>	<p>Wet Bed / Mid-Coat</p> <p>Wet Bed Apply 1 light coat to the repair and blend panels.</p> <p>Mid-Coat 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 with give proper color alignment.</p>
DRY TIME 	Refer to specific product data sheet for flash and dry times	<p>Wet Bed 5 -10 minutes before applying 2K™ Basecoat Color</p> <p>Mid-Coat 5 -10 minutes between coats and 15-20 minutes before applying 2K™ Clearcoat</p>
CLEARCOAT 	Apply one coat of 2K™ urethane clearcoat edge to edge on all refinish panels.	Apply two coats of 2K™ urethane clearcoat edge to edge on all refinish panels.

TINTED MID-COAT

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 Flexible Additive (P100-2020). It must be flexed when used as tinted mid-coat layer and as a topcoat clear. Refer to PDS N7.1, “Plastics Painting Process.” When using P190-1002 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 Manufacturers 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 2-3 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 midcoat required to achieve 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 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 pick-up 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 basecoats fade-out techniques, refer to 2K™ PDS N7.3, "Blending Techniques."
2. Prepare the area surrounding the repair using an Ultrafine scuff pad with Waterbased Sanding Paste (P562-100). Clean with Waterborne Pre Cleaner (P980-251) using one 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 area. This is important as not to generate a defined blend edge which may appear as a dark line. 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

Additional Uses for P190-1002

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

Wet Bed



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 pearls colors. Apply a single light coat to the repair and blend panel, Allow 5-10 minute flash time before applying P422 2K™ Basecoat color.

Blending Additive

Under certain conditions, P190-1002 mixed at 1:1 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.

Blend Check

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.

P190-1002 Basecoat Blender	
Mix Ratio 1:1 	P190-1002 1 part P850-16XX 1 part
Pot Life 	Indefinite

2K™ PERFORMANCE SPECIFICATIONS

Product:	P190-1002 Basecoat Blender
Category:	Specialty
VOC As Packaged:	5.84 lbs per gal/ 701 gm/l
VOC As Packaged: (Less Exempt)	4.51 lbs per gal/ 542 gm/l
VOC (RFU) @ 1:1 (Max)	6.40 lbs per gal/ 768 gm/l
VOC (RFU) @ 1:1 (Max) (Less Exempt)	5.95 lbs per gal/ 714 gm/l

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