

Product Data Sheet

May 2006

**INTERNATIONAL MASTER
FOR PROFESSIONAL USE ONLY**

10320

2K P421 - Single Layer Metallic System Medium Solids

<i>Product</i>	<i>Description</i>
P421-	2K Single-layer Metallic colour mixes
P420-/P421-/P425-/P429-	2K Mixing basics
P190-376	2K Adjuster
P210-796/-798/-828/-847	2K MS Hardeners
P210-790	Express Hardener
P210-832	MS Express Hardener
P850-1490/-1491/-1492/-1493/-1494/-1495	2K Thinners
P850-1401	Fade-out Thinner
P275-220	2K Rapid Dry Catalyst
P017-773	2K Air dry lacquer converter
P565-554	2K Matting Agent

Product Description

The Nexa Autocolor 2K mixing scheme has the capability to provide a full range of single-stage and basecoat finishes from a single set of mixing basics. P421-line is a 2-pack acrylic single-layer metallic system based on this mixing scheme, which offers a hard and durable finish with good gloss and coverage suitable for all types of repair work. P421-line colours may be used with standard MS hardeners or express hardeners.

Innovating Repair Solutions

THESE PRODUCTS ARE FOR PROFESSIONAL USE ONLY.

Product Data Sheet

GENERAL PROCESS INFORMATION

SUBSTRATES AND PREPARATION

P421-line should only be applied over: -

- **Nexa Autocolor** 2-pack primer/undercoat, hand flatted with P600 or finer grade wet or dry paper, or machine sanded with P320 grade or finer, prior to topcoat application.
- **Nexa Autocolor** 2-pack Wet-on-wet primer.
- Prepared existing paintwork in sound condition. Existing paintwork should first be abraded (E.g. with Scotchbrite™ Ultrafine Grey and/or P562-100) and cleaned with a suitable pre-cleaner prior to application of P421-line colours.

NOTE : On new panels coated in works primer/electrocoat it is recommended that a **Nexa Autocolor** 2-pack primer is applied.

COLOUR IDENTIFICATION AND CHECKING

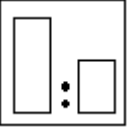




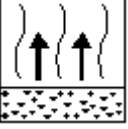

As with all Refinish paint systems, a colour check should be carried out before painting. Ensure check mix is thoroughly stirred before carrying out colour check.

2K COLOUR MIXING

P421-line 2K colours are mixed from P420-, P421-, P425- and P429-line mixing basics and P190-376 2K Adjuster using the weight-mix recipes provided. This mix should be thoroughly stirred to achieve a colourmatch.

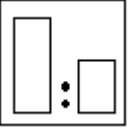




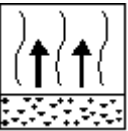

In order to ensure colour accuracy, it is essential that new cans of 2K mixing basics are thoroughly hand-stirred when opened, followed by 10 minutes stirring on a mixing machine. Thereafter, mixing basics should be machine stirred twice a day for a minimum of 10 minutes each time.

**STANDARD PROCESS
(ALL REPAIRS)**

	Hardeners P 210-796/-798/-828	P210-847 (High Temperature Process)
	P421- 3 parts P210-796/-798/-828 1 part P850-2K Thinner 2 parts	P421- 3 parts P210-847 1 part P850-2K Thinner 2 parts
	14-15 secs DIN4 at 20°C (16-18 secs BSB4) Pot-life at 20°C : 4 hours	14-15 secs DIN4 at 20°C (16-18 secs BSB4) Pot-life at 20°C : 4 hours
	Fluid tip: Gravity fed: 1.3-1.6 mm Suction fed: 1.4-1.8 mm Pressure: 3.3-4.0 bar (50-60 psi)	Fluid tip: Gravity fed: 1.3-1.6 mm Suction fed: 1.4-1.8 mm Pressure: 3.3-4.0 bar (50-60 psi)
	Fluid tip : Gravity fed : 1.3-1.7 mm Suction fed : 1.6-1.8 mm Pressure : 10 psi max (air cap)	Fluid tip : Gravity fed : 1.3-1.7 mm Suction fed : 1.6-1.8 mm Pressure : 10 psi max (air cap)
	2 single coats and a double coat	2 single coats and a double coat
	Approx. 5 mins between coats. No flash-off is required before baking	Approx. 5 mins between coats. No flash-off is required before baking.
	Bake at a metal temperature of: - 70°C 20 mins 60°C 30 mins 50°C 60 mins Into service : When cool Air-dry at 20°C: Dust free 15 mins Handleable 6 hours Into service 16 hours	Bake at a metal temperature: 70°C 30 mins 60°C 40 mins 50°C 60 mins Into service When cool Air-dry at 20°C: Dust free 15 mins Handleable 6 hours Into service 16 hours

Product Data Sheet

EXPRESS PROCESS

	MS Hardener P210-832 (Medium Repairs)	P210-790 (Small Repairs)
	P421- 3 parts P210-832 1 part P850-2K Thinner 2 parts	P421- 2 parts P210-790 1 part P850-2K Thinner 1 part
	14-15 secs DIN4 at 20°C (16-18 secs BSB4) Pot-life at 20°C: 2 hours	14-15 secs DIN4 at 20°C (16-18 secs BSB4) Pot-life at 20°C: 2 hours
	Fluid tip: Gravity fed: 1.3-1.6 mm Suction fed: 1.4-1.8 mm Pressure: 3.3-4.0 bar (50-60 psi)	Fluid tip: Gravity fed: 1.3-1.6 mm Suction fed: 1.4-1.8 mm Pressure: 3.0-3.3 bar (45-50 psi)
	Fluid tip: Gravity fed: 1.3-1.7 mm Suction fed: 1.6-1.8 mm Pressure: 10 psi max (air cap)	Fluid tip: Gravity fed: 1.3-1.7 mm Suction fed: 1.6-1.8 mm Pressure: 10 psi max (air cap)
	2 single coats and a double coat.	2 single coats and a double coat
	Approx. 5 mins between coats. No flash-off is required before baking	Approx. 5 mins between coats. No flash-off is required before baking.
	Bake at a metal temperature of :- 60°C 20 mins 50°C 40 mins Into-service: When cool Air-dry at 20°C: Dust free 10-15 mins Handleable 4 hours Into-service 12 hours	Bake at a metal temperature of : 60°C 10 mins 50°C 20 mins Into-service When cool Air-dry at 20°C: Dust free 10 mins Handleable 2 hours Into-Service 4 hours

Product Data Sheet

GENERAL PROCESS NOTES - MEDIUM SOLIDS

SINGLE LAYER METALLIC APPLICATION

The recommended application technique is to apply 2 single coats followed by a double coat. To obtain best metallic appearance add 25% extra 2K thinner or P850-1401 to the mixed paint for the final double coat.

FADE-OUT PROCESS

P421- line colours may be faded out using P850-1401.
Please refer to fade-out process PDS for details.

CHOICE OF HARDENER

Nexa Autocolor offers a range of hardeners to suit the speed and quality requirements needed for every type and size of repair, under all conditions.

- P210-790 Provides the quickest way to process small repairs (10 minutes bake at 60°C metal temperature) and is ideal for use in cold conditions (i.e. below 22°C)
Recommended thinners : P850-1490/-1491/-1492)
- P210-832 Combines accelerated drying (20 mins bake at 60°C metal temperature) with a top quality finish which can be obtained on medium size repairs. This hardener is ideal for use up to 25°C. Recommended thinners : P850-1491/-1492/-1493.
- P210-796 Is suitable for larger areas (e.g. complete repaints) at temperatures up to 25°C.
Recommended thinners: P850-1491/-1492/-1493).
- P210-798 Should be used in place of P210-796 when the temperature lies between 25-30°C.
Recommended thinners: P850-1492/-1493/-1494.
- P210-847 Should be used when temperature exceeds 32°C. Recommended thinners:
P850-1493/-1494/-1495.
- P210-828 May be used as an alternative to P210-798/-847 in the 28-33°C range.
Recommended thinners: P850-1493/-1494/-1495.

CHOICE OF THINNER

The choice of thinner should be made according to application temperature, air movement and size of job. The recommendations below are for guidance only.

Thinner	Ideal Temperature Range
P850-1490	up to 15°C
P850-11491	10-20°C
P850-1492	18-28°C
P850-1493	25-32°C
P850-1494/1495	above 30°C

In general use a slower thinner in fast air movement booths and for large jobs and with HVLP application. Use a faster thinner in slow air movement booths and for small jobs.

GENERAL PROCESS NOTES - MEDIUM SOLIDS

USE OF P275-220

To increase the through hardening rate, P275-220 Rapid Dry Catalyst may be added at a level of 10 mls to 0.5 litres of activated and thinned paint. Pot-life will reduce to 2-3 hours.

NOTE: P275-220 should not be used in combination with P210-790 or P210-832 and should not be used in conditions of high temperature (i.e. above 30°C) and high humidity.

RECOATABILITY

P421-line colours, with all recommended hardeners, are fully recoatable after the "Into-service" times.

REDUCTION OF GLOSS LEVELS

The gloss level of P421-line solid colours may be reduced by addition of P565-554 2K Matting agent according to the colour formulation provided on the microfiche. Alternatively, use the following guidelines :-

Gloss Level:	P421-	P565-554
Semi-gloss	2 parts (67%)	1 part (33%)
Eggshell	3 parts (60%)	2 parts (40%)
Matt	1 part (50%)	1 part (50%)

This mix should then be activated and thinned as standard P421-line. Where a matt finish is required in the repair of a plastic part, refer to the **Nexa Autocolor** Plastics Painting System PDS.

RECTIFICATION AND POLISHING

Polishing is not normally required as P421-line solid colours have a full gloss finish. However, if dirt is a problem, denib with P1200 or finer, then polish by hand or using a quality polish such as SPP Polishing System (refer to SPP PDS) Polishing of 2K is easiest between 1 and 24 hours after "into service" drying times.

DOOR SHUTS/INTERIORS

For the finishing of interior surfaces use of an Express Hardener is recommended. Alternatively, 2K can be converted to give lacquer dry by adding an equal part of P017-773 Lacquer Converter to the base colour mix, using the following mixing ratios: -

Spraying:		Brushing:	
P421-line	1 part	P421-line	1 part
P017-773	1 part	P017-773	1 part
P850-1401	1 part	P851-727	0.5 part

This system is recommended for interior surfaces only.

PAINTING PLASTICS: Use the standard **Nexa Autocolor** Plastics Painting System (refer to PDS)

OTHER POINTS TO NOTE

1. For optimum application, ensure both spray booth air temperature and paint temperature is above 20°C. Best results will be obtained by allowing adequate time for the paint to reach spraybooth temperature before use. It is recommended that 2K mixing basics are stored in the temperature range of 15-30°C.
2. When using 2-pack products it is recommended to clean the gun thoroughly immediately after use.

These products are for professional use only, and are not to be used for purposes other than those specified. The information on this TDS is based on present scientific and technical knowledge, and it is the responsibility of the user to take all necessary steps in order to ensure the suitability of the product for the intended purpose.

For Health and Safety information please refer to the material Safety Data Sheet, also available at: http://www.ppg.com/Autocolor_MSDS

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Product Data Sheet

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