

Product Data Sheet

May 2006

INTERNATIONAL MASTER
FOR PROFESSIONAL USE ONLY

10120

2K Single Layer Solid Colour System Medium Solids

<i>Product</i>	<i>Description</i>
P420-	2K Solid Colour Mixes and 2K Readymix
P420-/P425-/P429-	2K Mixing Basics
P190-376	2K Adjuster
P210-796/-798/-828/-847	2K MS Hardeners
P210-832	MS Express Hardener
P210-790	Express Hardener
P850-1401	Fade-out Thinner
P850-1621	Aerosol Fade-out Thinner
P850-1490/-1491/-1492/- 1493/-1494/-1495	2K Thinners
P275-220	2K Rapid Dry Catalyst
P017-773	2K Air Dry Lacquer Converter
P565-554	2K Matting Agent

Product Data Sheet

Innovating Repair Solutions

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.

P420-line is a 2-pack acrylic single-layer solid colour system based on this mixing scheme which offers a hard and durable finish with superb gloss and coverage suitable for all types of repair work. When standard MS hardeners are used in conjunction with P420-line mixes, an easy application, high build MS 2-coat system is obtained. When used with Express hardeners, P210-832 and P210-790, a combination of rapid drying and high performance can be achieved which enables repair process times to be significantly reduced.

GENERAL PROCESS INFORMATION

Substrates and Preparation

P420-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 P850-14 or P850-1402 prior to application of P420-line colours.

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

COLOUR IDENTIFICATION AND CHECKING

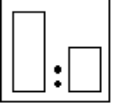





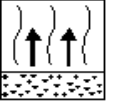

As with all refinish paint systems, a colour check should be carried out before painting. Ensure check mix is thoroughly stirred before carrying out colour check.

2K COLOUR MIXING

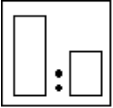





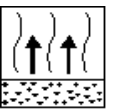

P420-line 2K colours are mixed from P420-, P425- and P429-line mixing basics and P190-376 2K Adjuster using the weight-mix recipes provided. This mix should be thoroughly stirred to achieve colour-match.

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 P210-796/-798/-828	P210-847 (High Temperature Process)
	P420- 3 parts P210-796/-798/-828 1 part P850-2K Thinner 0.4 - 0.6 parts	P420- 3 parts P210-847 1 part P850-2K Thinner 0.4 - 0.6 parts
	18-19 secs DIN4 at 20°C (23-25 secs BSB4) Pot-life at 20°C: 3 hours	18-19 secs DIN4 at 20°C (23-25 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: 3.3-3.7 bar (50-55 psi)	Fluid tip: Gravity fed: 1.3-1.6 mm Suction fed: 1.4-1.8 mm Pressure : 3.3-3.7 bar (50-55 psi)
	Fluid Tip Gravity Fed: 1.3-1.6 mm Suction Fed: 1.4-1.6 mm Pressure: 0.7 bar/10 psi max (@ air cap)	Fluid Tip Gravity Fed: 1.3-1.6 mm Suction Fed: 1.4-1.6 mm Pressure: 0.7 bar/10 psi max (@ air cap)
	Fluid Tip Gravity Fed: 1.3-1.6 mm Suction Fed: 1.4-1.6 mm Inlet Pressure: Refer to spraygun manufacturers instructions, normally 2 bar/30 psi (inlet)	Fluid Tip Gravity Fed: 1.3-1.6 mm Suction Fed: 1.4-1.6 mm Inlet Pressure: Refer to spraygun manufacturers instructions, normally 2 bar/30 psi (inlet)
	2 full single coats	2 full single coats
	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 :- 70°C 15 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 of 60°C : 70°C 20 mins 60°C 40 mins 50°C 75 mins Into service When cool Air-dry at 20°C: Dust free 20 - 30 mins Handleable 8 hours Into service 24 hours

Express Process

	Hardeners P210-832 Medium Repairs	P210-790 Smaller Repairs
	P420- 3 parts P210-832 1 part P850-2K Thinner 0.4 - 0.6 parts	P420- 4 parts P210-790 2 parts P850-2K Thinner 1 part
	18-19 secs DIN4 at 20°C (23-26 secs BSB4) Pot-life at 20°C: 2 hours	16-17 secs DIN4 at 20°C (20-22 secs BSB4) Pot-life at 20°C: 90 minutes
	Fluid tip: Gravity fed: 1.3-1.6 mm Suction fed: 1.4-1.8 mm Pressure: 3.3-3.7 bar (50-55 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: 1.3-1.6 mm Suction Fed: 1.4-1.6 mm Pressure: 0.7 bar/10 psi max (@ air cap)	Fluid Tip Gravity Fed: 1.3-1.6 mm Suction Fed: 1.4-1.6 mm Pressure: 0.7 bar/10 psi max (@ air cap)
	Fluid Tip Gravity Fed: 1.3-1.6 mm Suction Fed: 1.4-1.6 mm Inlet Pressure: Refer to spraygun manufacturers instructions, normally 2 bar/30 psi (inlet)	Fluid Tip Gravity Fed: 1.3-1.6 mm Suction Fed: 1.4-1.6 mm Inlet Pressure: Refer to spraygun manufacturers instructions, normally 2 bar/30 psi (inlet)
	2 full single coats	2 full single coats or 1 single and 1 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 :- 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 : 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

General Process Notes

FADE-OUT PROCESS

P420- line colours may be faded out using P850-1401. Please refer to fade-out process TDS for details. Alternatively use P850-1621 Aerosol fade-out thinner. See TDS for process.

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/-1493.)

P210-832 - combines accelerated drying (20 mins bake at 60°C metal temperature) with a top quality Finish on medium size jobs. This hardener is ideal for use up to 25°C.
Recommended thinners : P850-1490/-1491/-1492/-1493/-1494.

P210-796 - is suitable for larger areas (e.g. complete repaints) at temperatures up to 25°C.
Recommended thinners : P850-1490/-1491/-1492/-1493/-1494/-1495.

P210-798 - should be used in place of P210-796 when the temperature lies between 25-30°C.
Recommended thinners : P850-1490/-1491/-1492/-1493/-1494/-1495.

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 Extra Fast	10-20°C
P850-1491 Fast	15-25°C
P850-1492 Medium	20-30°C
P850-1493 Slow	25-35°C
P850-1494 Extra Slow	30-40°C
P850-1495 High Temperature	35-45°C

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

General Process Notes

USE OF P275-220

To increase the through hardening rate with P420- colours, 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

P420-line colours, with all recommended hardeners, are fully recoatable after the "Into-service" times.

REDUCTION OF GLOSS LEVELS

The gloss level of P420-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	P 420-	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 P420-line. Where a matt finish is required in the repair of a plastic part, refer to the **Nexa Autocolor** plastics painting system TDS.

RECTIFICATION AND POLISHING

Polishing is not normally required as P420-line solid colours have a full gloss finish. However, if dirt is a problem, de-nib with P1200 or finer, then polish by hand or machine using a quality polish such as SPP Polishing System (refer to SPP TDS).

Polishing of 2K is easiest between 1 and 24 hours after "into service" drying times.

DOOR SHUTS/INTERIORS

For the finishing of interior surfaces and door shuts 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	
P420-line	1 part	P420-line	1 part
P017-773	1 part	P017-773	1 part
P850-1401	1 part	P850-1493/-1494	0.5 part

This system is recommended for interior surfaces only.

PAINTING PLASTICS

Use the standard **Nexa Autocolor** plastics painting system (refer to TDS).

General Process Notes

OTHER POINTS TO NOTE:

1. For optimum application, ensure both spray booth air temperature and paint temperature are 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 highly 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

For further information please contact:

Customer Service Sales Group
PPG Industries (UK) Ltd
Needham Road
Stowmarket
Suffolk IP14 2AD
Tel: 01449 771771
Fax: 01449 773472

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