

Product Data Sheet

October 2010



INTERNATIONAL MASTER FOR PROFESSIONAL USE ONLY

J2470V

2K HS Hardener – Slow/High Temperature

Product	Description
P190-6676	HS Plus Clearcoat
P210-870	2K HS Hardener - Express
P210-872	2K HS Hardener - Fast

2K HS Hardener - Medium

HS Plus Clearcoat

P190-6676

Product Description

P210-875

P210-877

P190-6676 is a high solids 2-pack acrylic clearcoat. It offers a hard and durable finish with superb gloss and is suitable for all types of repair.

The P190-6676 HS Plus Clearcoat system offers compact processing options, from a fast 15 minutes at 60°C bake for rapid processing of small repairs, to 40 minutes at 60°C metal temperature bake system, for use on larger areas or higher temperatures application conditions.

For compliance reasons, P190-6676 has been designed for application with HVLP or Compliant spray guns. It can be used in two modes, standard 2-coat application and "one visit" application, where 1 light/medium flowing coat is followed by a full coat with no flash-off between coats.

Substrates/Preparation

P190-6676 should be applied only over: -

- P965-line **Aquabase™** basecoats
- P989-line Aquabase Plus basecoats
- Prepared existing paintwork in sound condition. Existing paintwork should first be abraded (E.g. with Scotch-Brite™ Ultrafine Grey with P562-106) and cleaned with P980-251, P980-9010 or P980-8252 prior to application of P190-6676.

Standard, High Temperature, Express and Fast Processes

	Standard and High Temperature Systems	Express and Fast Systems
	P190-6676 3.5 parts P210-875/877 1 part	P190-6676 3.5 parts P210-870/872 1 part
[]s	18-20 secs. DIN4 at 20°C	18-20 secs. DIN4 at 20°C
	Pot life at 20°C: 2 hours with 875 Pot life at 20°C: 2.5 hours with 877 It is recommended that the clearcoat is activated and thinned just prior to application. With fast systems, application should be completed as soon as possible after activation/thinning.	Pot life at 20°C: 30-40 minutes with 870 Pot life at 20°C: 1 hour with 872 It is recommended that the clearcoat is activated and thinned just prior to application. With express systems, application should be completed as soon as possible after activation/thinning.
HVLP	Fluid Tip Gravity Fed: 1.2-1.4 mm Suction Fed: 1.4-1.6 mm Pressure: 0.7 bar/10 psi max (air cap)	Fluid Tip Gravity Fed: 1.2-1.4 mm Suction Fed: 1.4-1.6 mm Pressure: 0.7 bar/10 psi max(air cap)
COMPLIANT	Fluid Tip Gravity Fed: 1.2-1.4 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: 1.2-1.4 mm Suction Fed: 1.4-1.6 mm Inlet Pressure: Refer to spraygun manufacturers instructions, normally 2 bar/30 psi (inlet)
	Conventional 2 coat Process	



Apply 2 single coats to give 50-75 microns (2-3 thou) dry film thickness Allow 5 -7 mins flash-off between coats.

One Visit Process

Apply 1 light/medium coat followed by a full coat to give 50 microns (2 thou) dry film thickness.

The first coat should be applied to all repair panels before the second coat is applied. For less than 3 panels, allow 2-3 minutes flash between spray coats.

For more than 3 panels, no flash off is required.



Standard, High Temperature, Express and Fast Processes (continued)

(continued)						
	Standard and High Temperature Systems	Express and Fast Systems				
(†(†(5555555	0 - 5 minutes flash-off required before baking, depending on oven type	0 - 5 minutes flash-off required before baking, depending on oven type				
	P210-875 P210-877 70°C : 20 mins 25 mins 60°C : 35 mins 40 mins 50°C : 70 mins 80 mins Into service : When cool Air-dry (20°C): Dust free: 40-50 mins Handleable: 6 hrs 8 hrs 1nto Service: 16 hrs 24 hrs	Pake at metal temp. of : P210-870 P210-872 70°C : 15 mins 15 mins 60°C : 15 mins 25 mins 25 mins 50°C : 30 mins 50 mins 50 mins Into service : When cool Air-dry (20°C) : Dust free: 20 mins 20-30 mins Handleable: 2 hours 4 hrs Into Service: 8 hours 12 hrs				
	Short-waya : 8-15 mins full nower					



Short-wave: 8-15 mins full power (depending on colour and equipment)



General Process Notes

RATIOS FOR MATT, TEXTURE AND FLEXIBLE OPTIONS

Using P565-554, it is possible to reduce the gloss of P190-6676. The addition of P565-7210/7220 can be used to give a textured finish. For use over flexible substrates, P100-2020 should also be used.

Note: The majority of plastics used on cars are considered Rigid. These plastics may have some flexibility when painted off the car, but are rigid once mounted. UHS Clearcoats only require the addition of the Flexible Additive (See Flexible chart below) when painting very flexible plastics, mostly found on older vehicles, e.g. foam type.

The following tables give a **1L WEIGHT MIX** for various topcoat appearances, ready to spray. The weights in grams are cumulative. **DO NOT TARE** the scale between additions.

Although P190-6676 normally does not require thinner, some of these ratios need thinner to achieve viscosity. This is shown in the tables below.

Guide for using 2K Thinners P850-1491/1492/1493/1494

Substrate	Appearance	P190-6676	P565-554	P565-7210	P565-7220	P100-2020	HS Hardener	Thinner 14XX
Rigid	Gloss	761g	-	-	-	-	997g	-
	Semi-gloss	565g	811g	-	-	-	989g	-
	Matt	452g	847g	-	-	-	989g	-
	Fine Textured	331g	-	685g	-	-	789g	965g
	Coarse Textured	452g	-	-	768g	-	911g	971g
Flexible	Gloss	521g	-	-	-	761g	925g	994g
	Semi-gloss	288g	519g	-	-	652g	856g	990g
	Matt	242g	595g	-	-	709g	899g	996g
	Matt Textured	234g	-	535g	-	642g	826g	981g
	Coarse Textured	323g	-	-	549g	697g	951g	994g

Guide for using 2K Thinners P850-1692/1693/1694

Substrate	Appearance	P190-6676	P565-554	P565- 7210	P565- 7220	P100- 2020	HS Hardener	Thinner 16XX
Rigid	Gloss	761g	-	-	-	-	997g	-
	Semi-gloss	565g	811g	-	-	-	989g	-
	Matt	452g	847g	-	-	-	989g	-
	Fine Textured	331g	-	685g	-	-	789g	950g
	Coarse Textured	452g	-	-	768g	-	911g	965g
Flexible	Gloss	521g	-	-	-	761g	925g	988g
	Semi-gloss	288g	519g	-	-	652g	856g	979g
	Matt	242g	595g	-	-	706g	896g	984g
	Matt Textured	234g	-	535g	-	642g	826g	968g
	Coarse Textured	323g	-	-	549g	697g	951g	990g



General Process Notes

FADE-OUT PROCESS

P190-6676 2K HS Clearcoat may be faded-out using the **Aerosol Fade Out Thinner P850-1621 or Express Blender P273-1105**. Please refer to the Fade-out / Blending Processes Technical Data Sheet M1000V for details of the technique to achieve a successful repair.

CHOICE OF HARDENER

P210-877 Ideal for processing large jobs at very high application temperatures (>34°C). Gives a 40

minutes at 60°C metal temperature bake system.

P210-875 Gives a standard 35 minutes at 60°C metal temperature bake.

Suitable for all types of job.

P210-872 Ideal for faster processing of medium-sized repairs (e.g. up to a front end)

giving 25 minutes at 60°C metal temperature bake.

P210-870 Allows fast processing of small to medium sized jobs, with a 15 minutes at 60°C metal

temperature bake time.

PAINT TEMPERATURE

As with other paint systems, optimum spray application is achieved if the paint is allowed to reach room temperature (20-25°C) before use. This is particularly important for high solids systems. It is strongly recommended that cold paint is warmed to a minimum of 15°C before application. Below this temperature paint application performance may be adversely affected.

INFRA-RED DRYING

Drying times are dependent upon colour and equipment. Refer to manufacturer's instructions for set-up details. When using Aquabase or Aquabase Plus basecoats, it is particularly important to ensure the basecoat is thoroughly dry before applying the clearcoat.

RECOATABILITY

P190-6676, in both standard and express modes, is fully recoatable after the "into-service" times.

RECTIFICATION AND POLISHING

Polishing is not normally required as P190-6676 has a gloss finish. However, if dirt is a problem, denib with P1500 or finer, then polish by machine using a quality polish such as SPP Polishing System (refer to SPP TDS). Polishing of P190-6676 is easiest between 1 and 24 hours after "into service" drying times.

PAINTING PLASTICS

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

OTHER POINTS TO NOTE

When using 2-pack products it is highly recommended to clean the gun immediately after use.



General Process Notes Best Practices with UHS Products

Paint storage conditions

Keep ready for use paint in good conditions to ensure correct viscosity.

RFU temperature above a minimum of 15°C, and ideally over 18°C. This includes paint, hardeners and thinners.

Mixing and making ready for use

Activate accurately, and by weight where ever possible.

Where mixing must be by volume, only use a round and parallel sided mixing container together with the correct mixing stick. If using a measuring container marked in percentages, you must be sure that the percentages give the correct quantities.

Make sure that Hardeners and Thinners are mixed in well. High solids or high viscosity products can take a little longer to mix in, so a good practice is to stir Hardener in first, then add thinner before stirring again.

Use mixed product as quickly as possible.

Choose the correct Hardener for the required bake cycle.

Keep to the recommended levels of additives.

Do not exceed the recommended level of additives such as Flexibilisers.

Application technique, process and equipment choices

Use correct spraygun set ups, and set up the spraygun correctly.

Use a "Single Visit" application wherever possible, following the advice given in the application section.

Check that the spraybooth is operating effectively. If necessary make an oven check to be sure that metal temperature is reached, especially on low down repair areas.

Nexa Autocolor recommendations are based on time at metal temperature, so this should be allowed for in the bake cycle that is set for the job.

A Part

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Guide to Weight Mixing

GUIDELINES FOR WEIGHT MIXING

Where a specific volume of clearcoat mix is required, this may be best achieved by weight mixing, using the guidelines below.

The weights are cumulative - please do **NOT** tare the balance between additions.

Volume of RFU Paint (Litres)	Weight P190-6676	Weight P210-870/-872/-875/-877
0.10 L	76 g	100 g
0.20 L	152 g	199 g
0.25 L	190 g	249 g
0.33 L	251 g	329 g
0.50 L	380 g	498 g
0.75 L	570 g	747 g
1.0 L	761 g	997 g
1.5 L	1141 g	1496 g
2.0 L	1521 g	1994 g
2.5 L	1902 g	2493 g

VOC INFORMATION

The EU limit value for this product (product category: IIB.d) in ready to use form is max. 420g/litre of VOC. The VOC content of this product in ready to use form is max. 420g/litre.

Depending on the chosen mode of use, the actual ready to use VOC of this product may be lower than that specified by the EU Directive code.

NOTE:

Combinations of this product with P565-554, P100-2020, P565-7210 or P565-7220 will produce a paint film with special properties as defined by the EU Directive code.

In these specific combinations: The EU limit value for this product (product category: IIB.e) in ready to use form is max. 840g/litre of VOC. The VOC content of this product in ready to use form is max. 840g/litre.

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 Heath and Safety information please refer to the material Safety Data Sheet, also available at: www.nexaautocolor.com

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