The Waterborne Trend
SPOTLIGHT ON THE NORTHEAST
Running the Rapids
with PPG Technology

Doug Beuke
Compliant Segment Manager, N.A.

Anyone who has ventured down one of the great American white water rivers knows the thrill and pure adrenaline that the rushing waters can bring as your raft catapults up then smashes down onto the next wave. It takes solid preparation and great teamwork to successfully prevail through the turns and rocks of Class 5 rapids. In the end, all the sweat and toil pays off with a simple smile of accomplishment.

In like fashion, the North American waterborne adventure is delivering thrills and similar payoffs riding the PPG raft of state-of-the-art, waterborne basecoat technologies. It’s an effort that began many years ago and after much careful planning and preparation by the PPG team. Our confidence of course was lifted by our past success in prevailing over uncharted refinish waters. Case in point was the successful launch of Deltron® into the urethane basecoat-clearcoat mainstream of the ‘80s. With its superior color match, performance and ease of use, Deltron soon became one of the most widely used products to date and the preferred choice of collision shops—many of which had previously capsized using other brands.

Today—as we enter into this new era of green consciousness—over 20,000 shops in Europe and more than 4,000 North American collision centers have already successfully “run the rapids” with our advanced Envirobase® High Performance and Aquabase® Plus waterborne systems. And, like Deltron that preceded them, our waterborne brands are quickly earning the reputation as best in class, as feedback from customers is overwhelmingly favorable (see page 20). Praised most often is the great color match. Combine this essential requirement of any refinishing system with unmatched productivity performance and ease of use, and it’s no wonder so many shops are thrilled with having made the transition to PPG waterborne.

But remember, like running the rapids, the right raft (technology) isn’t the only critical factor in the equation for success. Proper preparation and teamwork are ultimately what makes the journey down the rapids successful. Our “Convert with Confidence” process, detailed on page 26, is precisely aimed at doing just that… preparing shops in advance in order to make an easy transition. Teamwork begins with PPG’s offering of more training centers, instructors and territory managers to support our customers’ conversion to waterborne than any other paint company. So grab your paddle, jump on board and enjoy the awesome ride! 

The New Wave

RELY ON PPG’S PROVEN WATERBORNE TECHNOLOGY AND SUPPORT TO COMPLY WITH THE OTC’S NEW MODEL RULES

Following similar regulations already in place throughout Europe, Canada and California, the Ozone Transport Commission (OTC) has adopted a resolution calling on its member states to place new limits for VOC emissions that will require collision repair facilities to convert to a 3.5 VOC refinishing system, such as waterborne basecoat, by January 1, 2012. OTC member states include: Connecticut, Delaware, the District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont and Virginia. This special edition of the Repaint Reporter is designed to provide collision shops in this region with a greater understanding of waterborne technology and how PPG can help make the move to waterborne both successful and profitable.
”It lays down smoother and cleaner. It handles better—and the colors are more vibrant. I don’t miss solvent at all.”

Chivo, Painter Extraordinaire West Coast Customs
As water evaporates from PPG waterborne basecoat, uniquely-shaped latex particles form and bind together to create exceptional durability, chemical resistance and precise alignment with the original OEM finish.

The Technology

IT’S WHAT’S IN THE WATER THAT REALLY COUNTS.

Already the refinishing systems of choice throughout Europe—and more than 4,000 shops across North America as of mid-year 2010—the spectacular success of PPG’s Aquabase® Plus and Envirobase® High Performance is being driven by innovative and unique technology, the culmination of more than 20 years of research and development working with OEMs and shops alike.

Given that PPG is solidly in the lead with a successful, proven waterborne platform, the question often raised is what makes one waterborne platform better than the next? Obviously, say the experts, the success of a waterborne refinishing platform hinges upon what’s in the water. And in the case of PPG’s waterborne systems, that means a very high-tech type of pigment particle designed especially with refinishing in mind.

“Our success is measured upon our ability to ‘recreate’ the original color, irrespective of whether it was originally created using a solvent- or water-based coating,” says Gareth Hughes, PPG director of technology and global platform marketing director. “This makes pigment and pigment dispersion extremely important.”

In traditional solvent-based systems, color match is achieved through a combination of many things: pigment, solvent selection, additives such as binders or hardeners, and application technique. “The chemistry involved is completely different,” says Hughes. “Whereas a solvent system utilizes long chain resins with high molecular weights, our water-based systems incorporate sophisticated latex particles that cling together when we want them to, and separate easily when necessary. These high-tech particles happen to be applied via water.”

In a waterborne system, the solvent is always the same: water. Therefore, the chemists and scientists developing the system must work hard to ensure that the pigment is delivered to the right place. This is especially important with metallic color matching and getting the orientation of the aluminum flake to lay down correctly. To more clearly understand the differences between waterborne and solventborne refinishing systems, Hughes describes the application process. “When you spray color through a gun,” says Hughes, “the solventborne particles fly through the air. At this point, the solvent is already beginning to evaporate. The resin becomes more concentrated and its viscosity increases. When a pigment particle arrives at a panel, it is effectively frozen in place. Over the next couple of minutes, the paint film shrinks and the particles align themselves to give us the desired effect.” Under this scenario, if a solvent is too slow, the flakes don’t lock up and may flow. The paint dries with the flakes not being parallel and this is what gives a finish a dark or mottled appearance.

“In PPG’s waterborne systems,” Hughes continues, “the resins are made with latex particles. These look a bit like amoebas in that they have a solid core—that’s where the high degree of durability and chemical resistance comes from—and an outer shell that dissolves outwardly into fronds or tendrils. It is these tendrils, similar to octopus tentacles, which tend to tangle with one another, that bind the paint together. Because the ‘fingers’ tangle, it doesn’t matter how quickly the solution evaporates.”

The high-tech nature of these pigment particles, according to Hughes, is a major reason for the system’s superb metallic control and superior ease of use. Hughes says another important benefit lies in the fact that the pigment doesn’t settle in the toner bottle because the viscosity is so high. To untangle it, all you need to do is give it a shake. Therefore, no mixing machine is required, and this enhances color consistency.

Hughes pointed to the importance of the pigments themselves. “To evaluate a paint system, one has to consider the reason for its being,” says Hughes. “Simply put, paint is there to protect the car and provide the right look. How well a particular vehicle keeps its color is dependent less on resin technology and more on the proper selection of pigments. In developing the Aquabase® Plus and Envirobase® High Performance systems, PPG has selected from the most modern and durable pigments available.”

Noting that PPG has been offering a waterborne platform since 1992, Hughes considers the success of the PPG systems “business as usual” for the world leaders in automotive finishes. “Waterborne may be new to our customers,” he says, “but it is not new to us.” In fact, he says, the company has decades worth of feedback from both OEM and refinisher customers that point to it being every bit as good, if not better, than traditional solvent systems.

“The proof is in the warranty testing,” says Hughes. By that, he means that the waterborne platform is required to meet the same stringent standards (by OEMs) as solventborne systems in order to be eligible for warranty work. PPG systems are selected time and time again for their ability to meet these tests.

What words of advice does Hughes have for shop owners considering or making the conversion to water? “Don’t fear it,” he says. “If anything, this system is going to be easier than anything the shop has ever used before. And that is something we are very proud of.”

Not all waterborne systems are created equal

<table>
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<th>PPG Advantage</th>
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<td>• FULL SYSTEM OF NON-STIR, ANTI-SETTLING TONERS</td>
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<td>• INDUSTRY’S LONGEST SHELF LIFE—4 YEARS</td>
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A waterborne leader right from the start

NO OTHER COMPANY HAS MORE EXPERTISE IN ADVANCING WATERBORNE AUTOMOTIVE COATINGS TECHNOLOGY THAN PPG.

Long before most of North America’s body shops had even given thought to waterborne finishes, PPG was already immersed in it. That’s because PPG saw the environmental handwriting on the wall even before it was written and for the past two decades has been developing and refining its technological expertise in both North America and Europe.

Having worked closely with OEMs in their transition to waterborne at vehicle assembly plants, PPG scientists understood early on that the refinish industry would have to move away from solvent-based paints.

They took the steps to address the environmental issues solvent-based paints raised by developing a water-based paint system that produced remarkable results—that turned the heads of the OEMs.

PPG expanded its global research capabilities with the acquisitions of ICI Autocolor and MaxMeyer in the 1990s, solidly establishing itself as the world’s waterborne paint leader. That role was reinforced when, in 1992, ICI Autocolor (now Nexa Autocolor) introduced the world’s first waterborne refinish system, an innovation that received the United Kingdom’s Queen’s Award for Technology in 1993.

Listening carefully to customer feedback and taking advantage of its expanded global research capabilities, PPG continued to add refinements and innovations to its waterborne offerings throughout the 1990s and into the 21st century. For example, in 1998 it was the first to make available a compliant system capable of repairing 3-stage pearl finishes. And in 1999, PPG placed its first brand offering, Envirobase—a product of its best European and North American waterborne technologies—into body shops. Ferrari was so impressed that it chose Envirobase as its original equipment finish.

The OEM’s introduction of new metallic and effects finishes was the driving catalyst for PPG’s development in 2000 of new high-opacity toners offering the latest pigments—a significant advancement in waterborne color-match capabilities. These advancements were good reasons why PPG’s Aquabase Plus and Envirobase High Performance systems became readily accepted for use by more than 17,000 shops across Europe seeking to comply with the European Union’s stricter refinish regulations.

The latest innovation for PPG waterborne products is the Engine Bay and Interior Repair System, which significantly sped up the repair process when making these types of repairs. Today in North America, more and more collision shops are making the transition to waterborne. In fact, more than 4,000 collision shops have made the transition to PPG’s Envirobase High Performance and Aquabase Plus waterborne systems. Many of these shops have done so in light of new air quality regulations in California and Canada, and pending regulations in states governed by the OTC, predicted to take affect in January, 2012. The environment however is only one reason. A great many progressive shops have made the switch to “stay ahead of game,” knowing that PPG waterborne technology represents a major advancement over their solvent-based systems.

1986
PPG introduces waterborne paint technology for use in OEM assembly plants.

1989
Nexa (ICI) Autocolor first to launch waterborne products.

1990
Aquabase receives Queens Award for Technology in United Kingdom for OEM Finishes.

1992
World’s first commercialized refinish waterborne basecoat is introduced by Nexa (ICI) Autocolor, featuring innovative anti-settling technology.

1994
Aquabase technology wins UK’s national Automotive Trade Award for Best New Product.

1995
Aquabase receives Queens Award for Technology for Refinish.

1998
Aquabase introduces new compliant offering for repair of hatch pearl/Clear Finish.

1999
PPG launches Maximizer Aquabase and PPG Envirobase systems in Europe, PPG purchases ICI Autocolor specialty coatings business.

2001
Envirobase refinish technology is introduced for North American body shops.

2002
PPG Envirobase technology wins UK’s Institute of Transport Management Excellence Award in paint repair.

2005
Body shops across Europe and North America accept Envirobase Plus and Envirobase High Performance systems.

2006
Nexa Autocolor introduces Aquabase Plus into North American market.

2007
Envirobase High Performance introduced in North American market. PPG launches color control tool with Shop Prep in waterborne.

2008
Introduced first waterborne single-stage Engine Repair System.

2009
Introduced waterborne compatible high solids clearcoat with One-Dot application technology.

2010
Launched single-stage Interior Repair System.
Robbie Berman knows his stuff. He loves cars. Loves to fix things. And loves to be ahead of the game. As far ahead as possible. And he’s doing it with waterborne.

Robbie is the owner of Robbie’s Automotive and Collision Specialists in Dover, New Jersey, a 17,500 square-foot center producing annual sales of $4.5 million. His shop was one of the first in New Jersey to convert to waterborne coating. He voluntarily made the switch in August, 2009, long before air quality regulations would have compelled him to make the move.

For Robbie, converting to waterborne was an easy decision. He saw no reason to delay. Waterborne was the future and converting would not only prove his concern for the environment, it would also display his commitment to quality.

“PPG told us we were the first in the area to go to waterborne paint, way ahead of being required to by the state,” says Robbie. “The finish we’re putting out is far superior to any other collision repair that I’ve seen in the area.”

Robbie should know. He’s been around cars long enough to tell what’s good work and what isn’t. Ever since he was a little kid he liked to fix things. He was calling Chryslers at an area dealership when he heard a large building was up for sale. Robbie and his father, Bernie, a retired accountant, bought it and in 1983, opened Robbie’s Automotive, a mechanical repair facility.

At first, Robbie did repairs while Bernie ran the administrative side. Then, while making mechanical repairs on cars that had body work done at local shops, Robbie saw major problems that hadn’t been fixed.

“That’s when I knew my attention to detail and appreciation for quality would drive me to start a body shop here, as well,” he says. Soon “and Collision Specialists” was added to the business name.

That was 23 years ago. Since then, Robbie’s business has steadily grown. Today he’s painting about 120 cars per month with PPG’s Envirobase® High Performance system, the result of a commitment not just to waterborne products, but to high-quality waterborne products. However, Robbie wasn’t always a PPG guy.

“We were with another company for over 15 years. When I decided to go with water, we made every attempt to use their water—and saw our production cut in half. We had production problems mainly because of coverage and drying problems. You know, the more materials you put on, the more coats you put on, the longer it takes to dry. We couldn’t stay with them,” says Robbie.

After two months of problems, he called PPG territory manager Jeff Seyer and invited him in for a talk.

“Robbie investigates everything thoroughly,” says Seyer. “He’s got a state-of-the-art shop, top equipment; his spray booth even has a lift in it so the lower sides of cars are properly painted. He wants to do the right thing for his customers, the environment and his business.”

And his commitment is comprehensive. “Robbie’s always fine-tuning his operating processes,” said business consultant John Niechwiadowicz. “He’s always interested in gathering intelligence from across the country and applying it to his business to ensure he remains far ahead of the competition.”

Knowing the proof Robbie would want to see was in the product’s performance, Seyer arranged a waterborne demo. Within weeks Robbie made the switch. With PPG’s “Convert With Confidence” program easing the way, it was a smooth move. “PPG’s and the jobber’s (FinishMaster) training and support during the transition and now are excellent. It’s a wonderful training program,” Robbie says.

The paint itself, adds Robbie, has more than met expectations. “The color match is excellent. Working with metallics, blending, all that, is much easier than with solvents, much easier than with the other waterborne paint I had. Envirobase® HP is better and easier to use.”

Robbie’s painters, Carlos, Rach, Carlos, and Oscar agree. “I love PPG’s waterborne paint,” says Rach. “It’s very user friendly. It’s easier to apply. Color matching is better, blends stay smaller. It’s a big improvement over solvent. I wouldn’t go back.”

The equipment in Robbie’s collision center reflects his commitment to quality. Anticipating the switch, he replaced his previous downdraft paint booth with a GFS AdvanceCure system. He also has a Kaiser AS31 screw compressor, a heated air system by Walcom, SATAJet® 3000 WSB spray guns and a Becca gun washer with heated water.

“I’m pleased I switched when I did,” says Robbie. “We’ve cut back on VOCs 50% by using a waterborne basecoat like the factory does, which is better for the vehicle finish, the technician, and the environment. The product is far superior to the normal solvent paint job everybody’s been doing for years. This is the future. For me, the future is here right now.”

It’s all part of Robbie’s dedication to staying ahead, to leading instead of following.
A Simple, Compact System

HIGHLY PRODUCTIVE. EASY TO USE. ENVIRONMENTALLY SOUND.

A-Chromatic Surfacers
Available in white, gray or black. A-Chromatic surfacers are 2.1 VOC, fast-drying 2K primers.

A-Chromatic Sealers
2.1 VOC
ECS 20-Series sealers are 2.1 VOC, premium-quality primer sealers that can be intermixed to create a variety of low-VOC colors and 2K chromatic grays.

2.8 VOC
ECS 60-Series are acrylic urethane sealers with lower VOCs than standard National Rule sealers (2.8 VOC mixed using compliant thinners).

Basecoat
• High solids, non-stir toners with anti-settle tint technology assures accurate color consistency.
• Engine Bay & Interior Single Stage Repair—just four products to the Envirobase HP system, and you can match engine bay and interior colors and gloss with a single-stage process.

Color Tools
• Chromatic Variant Deck includes more than 4,000 color-accurate, waterborne-applied chips
• Domestic/Import Color Books

Clearcoats
The Envirobase HP system offers a choice of two high-solids clearcoat options, both with One-Visit® application technology.
• EC700 Production Clearcoat—2.1 VOC, high-solids clear designed for optimum productivity.
• EC750 Appearance Clearcoat is formulated to deliver the best appearance from a 2.1 VOC high solids clear.

Envirobase® High Performance
When waterborne basecoat was first introduced to the refinish repair marketplace in the early 1990s, matching OEM colors was not the technology’s strong suit compared to solvent. But that was then, this is now, and things have changed dramatically.

Over the past decade, manufacturers have come to see waterborne technology as the wave of the future and have made critical strides in color match pigmentation.

“A quality refinish paint system has to live up to a host of performance criteria, but ‘color match’ trumps all,” says Mary Kimbro, director, global color for PPG.

“That said, we believe PPG has set the benchmark for color match with Envirobase® High Performance and Nexa® Autolux™ Aquabase Plus. One just has to ask any of our customers who have experienced working with this advanced technology.”

According to Kimbro, much credit goes to PPG’s global waterborne platform team working in research and development centers located in Milan, Italy, Swomina, UK, Whittier, California, Allison Park, Pennsylvania, and Cleveland, Ohio.

One significant result of the global coordinated effort is that each toner developed for the waterborne platform has been optimized by carefully constructed experimental designs to make sure color variation from batch to batch and through application is reduced to a minimum.

“We’ve been able to make our tolerances for pigment variation tighter than ever and that’s made a huge contribution to color consistency and accuracy,” explained Kimbro.

Since approximately 70% of OEM colors are waterborne, PPG has introduced many new pigments in its waterborne color platform to ensure better OEM alignment and improved match accuracy. Envirobase High Polyurethane and Aquabase Plus systems benefit from advanced high-strength, high-opacity toners that incorporate a full range of tints, including the latest solid, metallic, xirallic, and mica colors, allowing any OEM color to be matched.

Color experts in PPG labs in Europe and the U.S. worked in close concert with car manufacturers and pigment suppliers to create precise OEM matches of some 25,000 prime color formulas dating as far back as 1986 as well as variant formulas from 1996.

Non-Stir Toners
Another important feature of PPG’s waterborne systems is the toners do not settle, thereby improving color consistency. PPG’s innovative anti-settle technology prevents pigment from settling to the bottom, as is the case in solventborne toners. Eliminating the need for a mechanical mixing machine, PPG waterborne tinters can simply be shaken by hand before use to help ensure the color you choose is the color you get. Risk of variance in color due to products not being stirred adequately is eliminated.

“As our waterborne technology has advanced, PPG’s color tools have evolved and improved as well,” said Mike Henry, PPG global manager color tools. “Our waterborne systems are supported by a host of state-of-the-art color tools and color information systems.”

Spray Applied Variant Chips
Both the Envirobase HP and Aquabase Plus color variant deck systems contain over 4,500 hand-matched variants. The color chips are spray applied with the same waterborne technology the painter uses. This ensures consistent alignment with the color chip.

Computerized Color Matching
PPG’s innovative PaintManager™ software offers waterborne system users many advanced features—from touch screen formula mixing in amounts as little as ounce quantities to full-blown paint management and VOC reporting functionality. Technicians have access to complete color data, including information on suggested undercoats, the most popular matches, and historic formulas.

RapidMatch™ is a new approach to electronic formula retrieval and is now available in the PaintManager software offered to waterborne customers. PPG has combined the strength of the only five angle measuring device in the refinish industry—RapidMatch® X-5—with a scientifically developed math algorithm customized for the automotive coatings segment. Whatever the target is, customers with RapidMatch will receive the best match available within seconds. Jobbers and shops alike can get up-to-the-minute color formula information from PPG Online Color at ppgrefinish.com.

Kimbro summarizes, “With Envirobase High Performance and Aquabase Plus, our customers can truly convert with confidence—comfortable with the knowledge that color match will be at its best.”
Mike began to research options on the Internet, reading articles and third-party reviews from peers in other parts of the country. He found that people were saying good things about PPG’s waterborne coatings technology. “We talked to various people who were using various systems, heard what sorts of issues they were having or not having,” says Mike. “And people seemed to be having good results with PPG.”

The local PPG distributor, Gary Brown of Kwik Auto Body Supplies, arranged a demo of PPG’s Nexa Aquabase Plus. The painters, skeptical at first, were impressed. “Our painters have been spraying solvent-based product for 15-plus years,” says Mike. “It was a significant change for them, but the product does what they say it will do, so they’ve adapted to it very well.” Naturally, the incumbent paint manufacturer also pressed for a demo, as did another competitor to PPG. Neither fared as well as PPG. “The other products were really difficult to make it right again,” said Mike. “If something went wrong—you had a scratch, for instance—it was very difficult to make it right again. Clearly, the other products were way behind PPG in their product development.”

One of the things that Tom valued most about MVP training was the ability to visit other collision centers. “It’s one thing to read the promotional material about something, and quite another to see it being used in a real-life situation.” The experience was so valuable that Boston Body Shop plans to send four additional people to MVP Green Belt Training in the near future.

Now, with a compliant, user-friendly system in place and plenty of new ideas and resources for continual process improvement, Boston Body Shop is ready for the next phase in its growth. Currently, Massachusetts is the only state that does not have Direct Repair Programs (DRPs) in place. It’s only a matter of time, though, and once again, Boston Body Shop—thanks to change agents like Mike and Tom—will be ready when the time comes. Or even a bit before. }

“Change can’t happen without the work of change agents like Tom and Mike. They led an effort to embrace new ideas and improve the shop’s system. And the updated system is paying off.”
The Aquabase® Plus System

Aquabase Plus is the way forward for the discerning collision center seeking to make the transition to waterborne without sacrificing the highest standards for quality, color integrity or throughput performance.

- Anti-settle, high-opacity toners
- Compact, non-stir mixing system
- Easy blending with superb results
- Excellent pigment alignment to OEM waterborne finishes
- Superior color and metallic control
- One-Visit® Engine Bay and Interior Repair Systems

MARKET YOUR BUSINESS TO THE GREEN-CONSCIOUS CONSUMER

Order promotional materials at ppgmarketingkits.com

Our Future
Preserving Our Future
NOW USING ENVIRONMENTALLY-FRIENDLY WATERBORNE FINISHES

- Reduces volatile emissions by up to 80%
- Improves air quality for the work environment and the community
- Reduces hazardous waste
- Aligns closely with original manufacturer waterborne paint technology for superb color match
- Lifetime Limited Warranty for as long as you own your vehicle

Clearcoats with One-Visit® Application Technology

- HS+ Primer Surfacer
  - Excellent film build, exceptional flattening properties, fast drying.
  - White, Grey or Black.
- HS+ Wet-on-Wet Sealers
  - 2.1 VOC sealers ideal for new panel work with excellent adhesion.
  - White, Grey or Black.
- HS+ Undercoat Hardener
  - One hardener for Surfacers and Sealers.

Express Clearcoat
- High solids, 2-pack urethane clearcoat with 10-minute bake option for single panel/spot repair.

HS Clearcoat
- Premium 2K urethane that delivers superb flow and gloss for all repairs.

Basecoat
- High-opacity, non-stir toners assure accurate color alignment.

Engine Bay/Interior
- Match OEM finishes with a time-saving, one-visit system.
The Converted

WHAT THEY HAVE TO SAY

From small shops to multi-location enterprises, from West Coast to East Coast, up through Canada and throughout Europe, over 24,000 collision centers are now using a PPG waterborne basecoat system. Many made the change to meet compliant regulations in their region. Others saw the opportunity to ‘stay ahead of the game’ and make a change to the ‘system of the future’ today. Still others got wind of the performance advantages, tried the technology, and chose to make a change for the better. One thing they unanimously have in common: no one ever switched back to their old solvent system!

## Boyd Auto Body and Glass

**Paul McFarlane**

General Manager

Vancouver, British Columbia

- # of Locations: 42 (Canada), 54 (US)
- Annual Sales: 525 million
- Cars per Month (Canada): 2,500–3,000
- Spray Booths: 50
- PPG System Used: Aquabase® Plus
- Previous Brand: Nexa Autocolor™

> “If you plan and prepare correctly, it’s very easy. Our painters like it. It’s easy to use. It’s just ‘delicious.’”

## Shadow Lake Collision and AA Collision

**Eric Dawson**

Owner

Omaha, Nebraska

- # of Locations: 2
- Annual Sales: 53.3 million
- Cars per Month: 175
- Spray Booths: 2
- PPG System Used: Envirobase HP
- Previous Brand: PPG Global Refinish System

> “Our painters took it ‘overnight.’ They took the PPG waterborne training class and within 2–3 weeks, they had it down and we’re lovin’ it.”

## Vince’s Autobody

**Joe Lomoriello**

Owner

Poughkeepsie, New York

- # of Locations: 1
- Annual Sales: Nearly 3 million
- Cars per Month: 50
- Spray Booths: N/A
- PPG System Used: Envirobase® HP
- Previous Brand: (Non-PPG)

> “The ability to blend this paint. It’s like something I’ve never seen before. It is just amazing.”

## Nash Chevrolet

**Sharron Green**

Body Shop Manager

Lawrenceville, Georgia

- # of Locations: 1
- Annual Sales: 53 million
- Cars per Month: 175
- Spray Booths: 2
- PPG System Used: Envirobase HP
- Previous Brand: (Non-PPG)

> “The metallics are just awesome. They stand up a lot brighter, we’re not having the issues we were having with color matches with the solvent on some of the silvers and grays where some of your metallics would die down.”

## Auto Body Collision and Glass

**Chris Hardin**

Vice President

Columbus, Ohio

- # of Locations: 4
- Annual Sales: 57 million
- Cars per Month: 500–1,000
- Spray Booths: 1 per location
- PPG System Used: Envirobase HP
- Previous Brand: (Non-PPG)

> “The finished product today, compared to what we were putting on the car a year ago, looks far superior. Our painters don’t want to go back ever.”

## Turnersville Collision Center

**Joe Belger**

General Manager

Turnersville, New Jersey

- # of Locations: 1
- Annual Sales: 59.1 million
- Cars per Month: 215–400
- Spray Booths: 4
- PPG System Used: Envirobase HP
- Previous Brand: (Non-PPG)

> “I like how vibrant the colors look and how easy it is to work with. We have fewer issues with water than we did with solvent.”

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For more information on the products used at these shops, contact your local PPG territory manager.

For Harner’s Autobody, Fairfield Collision Center, ABC Nissan, Auto Art South, Joe Firment Chevrolet, and Rieser Autobody.

Fairfield Collision Center

“We get superior coverage, faster cycle times and the color matches are more accurate. In my 32 years of managing this shop, this was the most rewarding change that we have made in products.”

Roger LaFrance
Manager

ABC Nissan

“As soon as I sprayed PPG, I liked it. My main concern was color matches, and it worked out real well. The metallics are spot on.”

Joe Harner
Owner

R & R Auto Body

“PPG has done an excellent job—from the training to the product to the color matching and variant chips. The whole thing has been excellent.”

Dave Roemer
VP Body Shop Manager

As Collision

“If I was a young apprentice and had never painted before, it would be easier to learn to use because it is so forgiving and the color match is so much better.”

Lee Dunlap
General Manager

Auto Art South

“I’ll give you the lowdown: the color matching is tremendous. Our painter says it’s absolutely so much better than the other…it is unbelievable.”

Danny Wallace
Owner

Joe Firment Chevrolet

“My guys love it. They enjoy working with it; the colors are good, the procedures are nice. They really moved right into it and didn’t have any kind of issues.”

Mike Sandor
Manager

Rieser Autobody

“Take a chip, and I don’t care who paints it, the chip is exactly the same as it is on the sprayed out panel, so you’re not spraying like three or four panels to get a color. It’s amazing.”

Fred Rieser
Owner

The Converted

Continued
Operations and equipment. Fortunately, the changes aren’t too intimidating. In fact, the end result can make shop life easier and more productive.

One particularly advantageous change is eliminating the need for a mechanical mixing system. Thanks to PPG’s revolutionary anti-settle technology, a simple rocking motion by hand is all that’s required to ensure the toner pigments are dispersed evenly and ready to pour. No longer do you have to wait the 10 minutes for the toner to be stirred when replaced or used for tinting.

Dedicated spray guns

PPG recommends a dedicated spray gun for waterborne basecoats and it should not be used with solvent-based paints. Just as you wouldn’t use your basecoat gun to spray clear, it’s not wise to run the risk of cross contaminating solvent with water. While you could make one of your existing basecoat guns as your dedicated waterborne gun, consideration should be given to the technology improvements manufacturers have made with this most valuable tool.

The spray gun must be rust proof, which generally means it should be made of stainless steel, brass or plastic components. Several spray gun manufacturers have specific gun, cap and fluid tip recommendations. Most fluid tip sizes fall in the 1.2 mm to 1.3 mm range and may include an air cap specially designed for water-based resins.

Cleaning the spray gun

Proper cleaning of the dedicated spray gun must be also considered since waterborne resins tend to stick to metal gun parts more so than solvent-based resins. Immediate cleaning is recommended using a waterborne cleaning solvent such as the OneChoice® SWX100 or Nexa Autocure P980-8212. These products contain an ideal combination of water, solvent and detergent to thoroughly remove waterborne resin.

Several manufacturers have specific waterborne gun cleaning equipment. Some recommend the use of PPG’s flocculating powder that, when added to the gun cleaning waste, separates the pigment and solids from the water. Yes, waterborne requires a different approach and may require additional equipment.

Waterborne resins spray and evaporate differently than traditional solventborne paint resins, so drying requires a different approach and may require additional equipment.

Solvent-based solvents want to evaporate into the surrounding air, while water is often content to remain in the paint film. So the simplest way to get the water to evaporate quickly is to pass a steady stream of dry air across the panel to be dried. By blowing air across a wet waterborne paint film, the dry times can be much faster than solventborne material.

There are several options available to speed the air flow across the paint film—the most effective are those that combine air movement with a heating process. Options fall into four basic categories:

- Bladed fans
- Blower nozzle towers
- Compressed air ventilators
- Vortex System

Bladed fans with safety cages can be mounted through the ceiling or in the corners of the booth. With three or four fans mounted inside the booth, the ambient air (from either the intake plenum or the booth cabin) is efficiently stirred. The objective is to disturb the liquid skin of the paint by increasing the air velocity against the surface.

Blower nozzle towers or rings can be mounted either in the corners of the booth, the sides (if the booth is extra long or a drive-thru with doors on either end), or in a continuous ring around the car. The air towers with adjustable nozzles are either ducted to receive air from the intake plenum or outside the booth or to recirculate the air within the cabin. They may include additional air filtration and some brands incorporate auxiliary light fixtures as well.

Compressed air ventilators are the least expensive solution to purchase. These devices—either hand held or mounted on a “tree”—can be directly focused on the repair area and amplify the compressed air by pulling ambient air through a venturi along with the compressed air. Venturi systems place additional demand on the compressed air supply, so shops will want to make certain their compressor has the necessary capacity.

The Vortex System utilizes two uniquely designed, adjustable, ring-shaped nozzles, which release a miniscule amount of compressed air—yet achieve air flow of 600+ feet per minute with just 40 PSI and 12 CFM.

Before making a purchase decision, prudent paint shops will compare the cost of the air accelerating device, its installation costs, the energy costs to run it and its ability to increase shop production by shortening dry times. You can depend on your distributor to help find a solution that best meets your specific needs.

While the move to a waterborne system requires a dedicated spray gun, auxiliary air flow equipment and a second hazardous waste stream, careful planning can make the transition easy and the investment really pay off.
“We wanted to move to waterborne as soon as possible and get past the learning curve. We didn’t want to be in a situation where the resources of our vendors were maxed out with everybody jumping on board at the same time.”

Guided by the old “if it ain’t broke, don’t fix it” maxim, there’s a natural tendency to delay the move to a lower-VOC refinish system until absolutely necessary. Yet, based on feedback from thousands of collision centers that have made the move to a PPG waterborne system, most owners will tell you that the move to waterborne was the right thing to do, explains Ken Friesen of Concours Collision Services in Calgary, Alberta. “And rather than waiting for there to be a rush of people trying to get converted, we decided to move ahead with it. If we knew it was going to be this good, we’d have done it sooner.”

“Don’t hesitate,” echoes Joe Belger of Turnersville Collision Center in Turnersville, New Jersey. “Take the plunge into water. Be proactive. All the myths you hear about water—it’s really not that. It’s just a great system.”

Convert with Confidence program
According to PPG’s Doug Beuke, product manager for compliant products, collision centers that have been most successful in making a smooth transition to waterborne have been those who have taken advantage of PPG’s “Convert with Confidence” process. This initiative supports and underscores the need for proper planning, technician training and the right equipment required to make a smooth, seamless transition.

“It’s been 20 years since the last major technology change in refinish paint, so it’s understandable that change can be forbidding,” says Beuke. “But over the past several years we’ve learned what works, what doesn’t, and as a result, we’ve identified some key best practices that can ensure a successful changeover. Simply putting waterborne in the shop and ‘giving it a whirl’ is unlikely to achieve the best results. But following our recommended conversion process will.”

Management involvement and planning
The “Convert with Confidence” process emphasizes that management be proactive early on, in the planning stages, and that owners and managers acquire a good understanding of what’s involved—from the technology and equipment, to workflow and waste stream management. To help in this regard, PPG and its distributors host Convert with Confidence Seminars throughout the Northeast for owners and managers.

Off-site training works best
Technicians find PPG waterborne basecoats easy to apply, but it does require learning an application technique that’s different than they’re used to. Experience has demonstrated quite dramatically that technicians who receive training off-site in a learning environment master the waterborne system much faster than those who only receive training on the job. To that end, PPG offers a comprehensive, one-day technical training course on waterborne. It provides both classroom and hands-on instruction, covering everything the paint technician will need to know about the technology and its proper application.

Conversion planning guide
PPG’s step-by-step Convert with Confidence Waterborne Conversion Planning Guide is a comprehensive guide to understanding what’s involved and how to plan for the changeover to waterborne basecoat. This helpful guide covers all the key considerations in the conversion process, and provides detailed timetables and checklists to follow—so there are no surprises on conversion day.

On-site training
When your conversion day arrives, PPG and its network of quality distributors will provide on-site training to ensure the paint operation gets up and running smoothly without disruption. To supplement the off-site training your technicians have already received, PPG will provide additional support to make sure they are proficient with our waterborne color tools, TouchMix® software, and anything else you need.
PPG’s Envirobase® HP waterborne basecoat system is now available with a full offering of “waterborne” formulas for those who want to create special finishes using Crystal Pearl™, Luminescence II™, Xirallics, Harlequin™, or StarFire. In addition, the use of a special midcoat layer over the waterborne basecoat, using VWM5555, allows painters to use such popular special effect pigments as Radiance™ II dyes, Flamboyance™, Prizmatique™, Liquid Crystal and Ditzler® Big Flake.”

“Our goal was to take all the custom colors now available in solvent-based systems and offer those same colors in waterborne,” says Randy Cremeans, marketing director for PPG Automotive Refinish. “I’m proud to say we accomplished that mission.”