

In-Flight Aerospace Coatings

February 2017

In this issue:

- PPG new chrome free primers
- Basecoat clearcoat update
- En Route



New PPG chrome free primers!

Corrosion is very damaging to airframe surfaces and structures and may impact flight safety if preventative actions are not taken. Protecting aircraft from corrosion is a top priority for aerospace OEMs, airline operators, the military, and PPG. For many years, aerospace coatings contained hexavalent chromium (chrome 6), an anticorrosive agent, to help protect aircraft from corrosion. Environmental regulations are being enacted that will prohibit the use of hexavalent chromium because of the health and



Completed application of Desoprime™ CA 7530, chrome-free, corrosion-inhibiting epoxy primer

environmental risks associated with its use. At PPG, we are committed to developing eco-friendly products that protect and preserve our environment for years to come, while also protecting aircraft from the damaging effects of corrosion.

PPG is a leading provider of environmentally friendly and sustainable products in the aerospace industry. In 2011, we were the first to introduce an OEM-qualified, hexavalent chromium-free, corrosion inhibiting exterior primer, [DESOPRIME™ CF CA7502](#). Airlines and third party painting companies use this product as an important part of their environmental initiatives to remove chromium. Building on the success of our CA7502 chrome-free primer, PPG is pleased to introduce our next-generation chromate-free, corrosion-inhibiting epoxy primer, [Desoprime CF CA7521](#). This primer eliminates the use of hexavalent chromium and reduces environmental impact and associated costs with the use and disposal of chrome 6. It provides excellent corrosion protection and adhesion to pretreated aluminum alloys while offering exceptional fluid resistance and outstanding flexibility. *Desoprime* primers and DESOTHANE® topcoats are compatible with our customers' spraying equipment and achieve excellent appearance. *Desoprime* CF CA7521 is qualified to Dassault specification DGT150171 and Safran specification HMRC0154. *Desoprime* CF CA7521 is also qualified with [Desothane HS CA8000](#) series topcoats to Safran specification HMRC0155 and to Zodiac Aero safety specification as a structural system. We continue working with our customers to expand its qualifications.

Continued on page 2



Chrome Free primers continued from page 1

In addition to *Desoprime* CF CA7521, we are pleased to introduce two new products to our portfolio of chrome free products: [Desoprime CA7530](#) and [Desoprime CA7065](#). As the first chrome free, corrosion inhibiting wash primer qualified to the AMS 3095A specification, *Desoprime* CA7530 is a pretreatment primer developed for exterior aircraft surfaces. It provides corrosion protection and offers fast drying time after application. *Desoprime* CA7065 is a high solids, chrome free polyurethane primer. When these products are used together, they offer significant advantages such as corrosion protection, 60% reduction in the emissions of volatile organic compounds (VOC), and no additional pretreatment of metal surfaces.

As environmental regulations move to reduce the use of chrome 6, alternatives for corrosion protection will be needed by the aerospace industry. PPG is committed to providing our customers with eco-friendly products that



Application of Desoprime™ CA7530 pre-treatment primer



Application of Desoprime™ CA7065 high solids, chrome free polyurethane primer



Application of chrome free wash primer during aircraft repainting

protect the aircraft from corrosion and the environment from chromium.

Desoprime chromate-free primers is another great example how at PPG, we protect and beautify the world™.

To learn more about PPG's new chrome free products, please contact your local PPG sales representative or visit our website, www.ppgaerospace.com

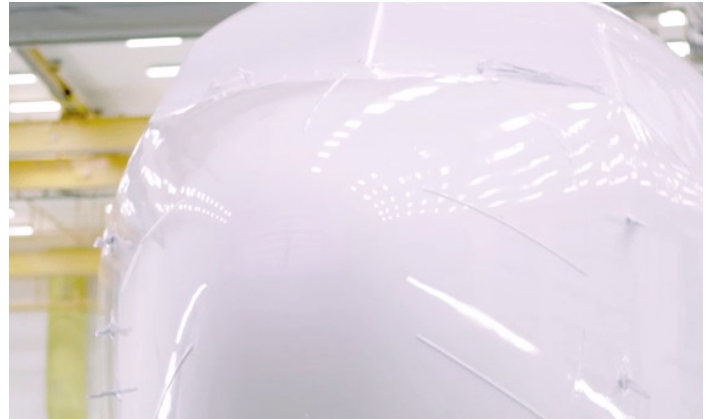
More than 500 aircraft flying with PPG DESOTHANE® HD Basecoat/Clearcoat exterior paint system

At PPG, we understand how color plays an important role in the aerospace industry. Colors connect you with your passengers, and your vibrant liveries distinguish you from another airline while promoting and representing your brand. We developed our [DESOTHANE® HD Basecoat/Clearcoat](#) exterior topcoat systems to give airlines the long lasting, high gloss, and color rich finishes airlines use to create exciting and beautiful liveries. Since introducing our *Desothane* HD Basecoat/Clearcoat exterior topcoat, more than 500 commercial and business aircraft have been painted using this system.

In addition to vibrant colors, *Desothane* HD Basecoat/Clearcoat exterior topcoat offers outstanding features compared to traditional high solids topcoats. Customers who use our *Desothane* HD Basecoat/Clearcoat exterior topcoat use less paint and save 15%-25% in weight when compared to a typical coating. The high gloss surface finish of the clearcoat provides better hiding capability, a smoother surface, and protects the basecoat. Airlines and aircraft operators report longer color retention and greater coating performance. The topcoat system is easier to repair, more resistant to fingerprints, and has a wider application window for applying the clearcoat. The clearcoat is easy to sand and polish, allowing easier and faster paint touch-up.

According to Scott Cavin, PPG's global segment manager for PPG's aftermarket aerospace coatings, "Our base colors dry in only a few hours, instead of five to seven hours for high solids topcoats. The faster drying time can save as much as one full day during the painting operation. Also, the faster drying time means that multiple colors can be applied in the same amount of time that one color of the traditional high solids topcoats is applied. Our *Desothane* HD Basecoat/Clearcoat exterior topcoats save you time and money."

Additional savings are gained when our customers apply logo colors and placards. The drying time is reduced to only one-half hour before the clearcoat can be applied, reducing this operation from 2 hours for



Completed Application of Desothane® Basecoat/Clearcoat White Coating during aircraft painting

high solids topcoats. These savings can generate additional revenue for our customers since more capacity in painting facilities is available, and aircraft can return to revenue service faster.

Desothane HD/Basecoat/Clearcoat topcoats create vibrant liveries. When PPG's [ANDARO® special effect pigments](#) are mixed with the topcoats, colors take on more depth and greater vibrancy. Our highly reflective *Andaro* special effect pigments open up more options for customers to design distinctive and rich liveries. Our team of coatings experts understands color and how to combine pigments to create unique, eye catching liveries.

We work with our customers around the world to create unique, customized color solutions that support their brand. The vibrant colors, greater color palette, faster painting times, and extended service life of PPG's *Desothane* HD Basecoat/Clearcoat topcoats provide outstanding value. Each year, the number of aircraft painted with *Desothane* HD Basecoat/Clearcoat increases as our OEM and aftermarket customers expand their use. We look forward to talking with you about our customers' experiences and how PPG's coatings and *Andaro* special effect pigments can bring your colors to life.

To learn more about these products, contact your local PPG sales representative or visit our website, www.ppgaerospace.com.



En Route

- Customers depend on PPG to deliver solutions
- PPG is developing products to reduce waste, improve efficiency and are environmentally sustainable
- PPG has global presence to serve you where you are located

By Mark Cancilla

Global Director, Aerospace Coatings

Since I began my career in our aerospace business, I have watched the aerospace industry go through changes. In recent years, the changes have been significant and have reshaped the industry. Today, airlines operate in a new world of business, requiring new thinking and approaches. Global airlines are serving more passengers, flying new and longer routes, and facing new competitive pressures. They are under increasing pressure to reduce operating costs, improve aircraft efficiency, increase aircraft utilization, and reduce aircraft downtime.

As I talk with our customers around the world, we discuss many common themes affecting the aerospace industry and how we are using new approaches in all aspects of our business. These changes are driven by new customer demands, new business opportunities, new competitors and competitive offerings, disruptive technologies, and environmental regulations. As we talk, we agree that the one constant in our industry is change, which requires us all to rethink our business operations. At PPG, we focus on driving the evolution of our products and services to meet the changing needs of the aerospace industry. Our customers look to PPG to provide solutions that are more cost effective, lighter weight, offer faster manufacturing and repair times, and meet more stringent environmental regulations to support their business needs.

Airplane OEMs are developing new, more efficient aircraft, expanding their global manufacturing footprint, delivering record numbers of new aircraft, and launching new businesses in customer aftermarket services. Our aerospace coatings business continues to develop innovative products. DESOTHANE® Basecoat Clearcoat topcoats, [DESOPRIME™](#) chrome free primers, [AEROCRON™](#) electrocoat primers, and [solar heat management coatings](#) protect and beautify the world and our customers' airplanes. PPG has a diverse, talented team and state of the art research and manufacturing facilities available to serve our customers. You can depend on PPG to deliver the solutions you need. Our global team of research scientists, product development specialists, and account managers work with our customers to understand the important drivers and needs for new aircraft, global fleet operations, and aircraft maintenance. Every day, our team delivers solutions to our customers around the world. PPG is a global company with solutions for your challenges and has a global presence to serve you wherever you are located.

As the platform director of PPG's aerospace coatings' business, I have worked closely with you to understand how we can better meet your needs and deliver products that add value to your business. The aerospace industry is an exciting and challenging business. I have appreciated your insights and ideas as we have worked together to solve complex challenges. This issue of In-Flight will be my last one as the director of PPG's aerospace coatings business. I have accepted a new assignment as the vice president of Environment, Health and Safety for PPG and will be relocating to Pittsburgh, Pennsylvania. I will miss all the professionals who work to provide safe, affordable, and reliable air travel. I wish you all the best.

Aerocron, Desoprime, and Desothane are trademarks of PRC-DeSoto International, Inc. Andaro and We protect and beautify the world are trademarks of PPG Industries Ohio, Inc.