PPG Aerospace
PRC-DeSoto

e-Sealants

Where Smart Solutions Take Flight®

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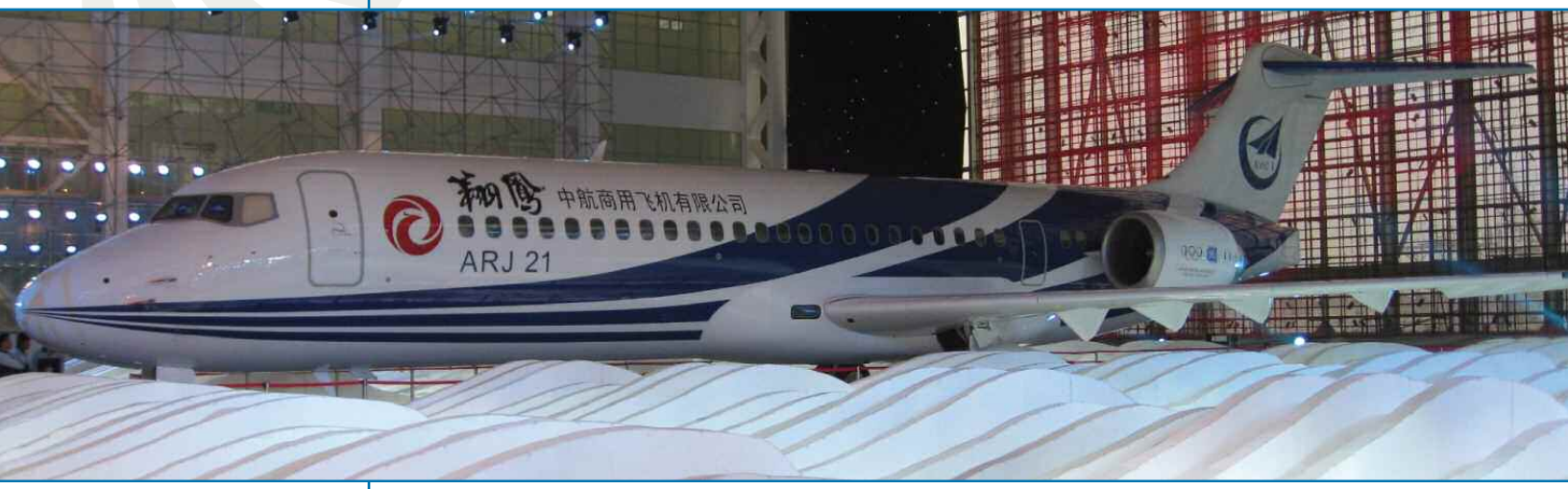

PPG's aerospace sealants will be used to seal the new ARJ21 regional jets scheduled for launch in 2010.

PPG Aerospace Sealants Selected for Use on China's ARJ21 Regional Jet Program

In 2001, members of the PPG Aerospace sealants team met with the Shanghai Aircraft Research Institute (FAI) group in Shanghai, China to discuss sealant requirements for a new Chinese-built regional jet aircraft ultimately named the ARJ21. Since that initial visit, the local PPG team, based at our Application Support Center (ASC) in Suzhou, China, has been collaborating with the ARJ21 designers to ensure proper selection of aerospace sealant products.

PPG's ASC-China quality control team has been communicating closely with the ARJ21 technicians about all details of testing methods and standards. To the satisfaction of the ARJ21 team, we have completed the qualification programs in accordance with their ZMS and ZPM specifications. PPG civil use sealant products will be put into large scale application on the first five aircraft due to launch by 2010.

Following the first successful test flight in November 2008, the ARJ21 is now undergoing a series of final stage performance evaluations during which PPG sealant products will be further assessed before completing the process. During product selection, PPG introduced PRC® Seal Caps and new advanced light weight, fast cure sealants at all of the major assembly subcontractors in the AVIC 1 Commercial Aircraft Company (ACAC) consortium formed to develop the ARJ21.

The ACAC consortium includes four members of the Chinese civil aircraft industry: Xian Aircraft Industry Company (XAC), responsible for constructing the ARJ21's wing sections and fuselage; Chengdu Aircraft Industry Group (CAC), for the nose section; Shenyang Aircraft Company (SAC), for the empennage; and Shanghai Aircraft Manufacture Factory (SAMF), for the horizontal stabilizer and final assembly. The Shanghai Aircraft Research Institute (FAI) and the Xian Aircraft Design and Research Institute (XADRI), also members of the consortium, are responsible for the aircraft design.

ACAC officials have said the Chinese government projects demand for as many as 500 ARJ21 regional jets over the course of a 20-year planned production period.

ACAC has received 208 orders from Shanghai Airlines, Shandong Airlines, Shenzhen Airlines, Xiamen Airlines, GECAS, Kunpeng Airlines, Joy Air, and Shanghai Electric, a leasing company. The aircraft is expected to become available to buyers in September 2009. The ACAC consortium aims to manufacture 11 ARJ21s a year by 2010, and 50 per year by 2015.

Doing More with Less

In late-2008, PPG Aerospace hosted a customer seminar in Budapest, Hungary, for airlines and aircraft maintenance companies. The theme was 'Doing More with Less' and featured technology updates from PPG's aerospace sealants, aerospace coatings and packaging platforms.

The major focus from the sealants platform was on light weight and fast cure materials, and in particular, how airlines are able to reduce their costs when using these materials compared to older technology.

The potential fuel savings benefits of light weight sealants such as PR-2007 and PR-1782 fuel tank sealants and PR-1772 fuselage sealant were demonstrated using fuel burn per kilo figures generated by different European airlines. Because these light weight sealants also cure faster than the older technology, aircraft are able to return to service more quickly, resulting in improved aircraft availability.

In addition, the benefits of using PPG's truly rapid cure sealants, such as PR-2001 fuel tank sealant, were discussed. On average, the exceptional cure speed of these products allows aircraft to return to service up to 21 hours faster than when using traditional cure materials.

This event was attended by 24 customers representing airlines of every size and fleet mix from as far north as Hamburg to as far south as Istanbul. Furthermore, some customers shared presentations validating the benefits they had seen by implementing PPG's new technologies.

If you'd like to learn more about how PPG Aerospace products can help you do more with less, please contact your local PPG Aerospace application support center or sales office.

PR-2007 Takes Sealant Weight Reduction to the Next Plateau

PPG Aerospace has launched its newest light weight fuel tank sealant, PR-2007. With a specific gravity of just 1.10, it is 30% lighter than standard (AMS-S-8802) fuel tank sealants. It is the lightest product qualified to SAE standard AMS 3281 and the only one meeting AMS 3281 Type II.

Not only is it light weight, the product cures in roughly one-third the time versus earlier generations of polysulfide aerospace sealants of equivalent pot lives. This equates to production time savings for the Original Equipment Manufacturer (OEM), or quicker fly-away time for the aircraft operators.

Weight reduction has always been a major driver in the aerospace industry. Lower weight solutions mean less fuel burn (more miles per gallon), longer range, and lower structural fatigue to the airframe (less wear and tear to the plane).

An aircraft's wing is internally comprised of hundreds of structural joints and thousands of fasteners. Each of these must be completely sealed in order to assure the wing can hold fuel. This represents considerable weight. Depending on the size of the aircraft, switching from older generation sealants to PR-2007 could easily represent hundreds of pounds of weight savings.

In 1993, PPG Aerospace developed the first light weight sealant, PR-1776. It was a revolutionary step, and has subsequently been globally adopted as the fuel tank sealant of choice by many of the world's aircraft manufacturers. PR-2007 now takes sealant weight reduction to the next plateau.

For additional information about PRC® and Pro-Seal™ aerospace sealants or other PPG Aerospace products, visit www.ppgaerospace.com.