PPG Aerospace
PRC-DeSoto

Selectively Strippable System

World leader in Selectively Strippable Technology

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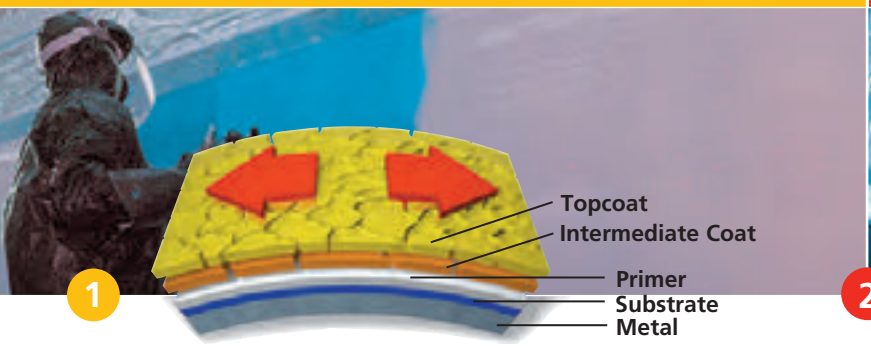
The Selectively Strippable System

- Reduces down-time
- Reduces the need for chromated primers
- Cuts the cost of other consumables



Old topcoat and intermediate coat are dislodged with benzyl alcohol stripper.

Topcoat and intermediate coat are easily removed by an environmentally compliant paint stripper. The original OEM basic primer system remains intact (long term corrosion prevention).

World leader in Selectively Strippable Technology

Aircraft are meant to fly, not sit in a hangar. The "down-time" required to repaint an aircraft is costly. PPG Aerospace selectively strippable system (SSS) shortens the repaint time so an aircraft can return to service days earlier than with a conventional exterior coatings system.

When using an intermediate coat between the primer and topcoat, it is necessary to strip only the topcoat and intermediate coat back to the underlying primer. The aircraft is then repainted by re-application of the intermediate coat and finished with a compatible topcoat. This means there is no need to apply a conversion coating, re-prime, or re-seal. As a result the down-time can be reduced by approximately 30 to 40%.

Eliminates Environmentally Harmful Strippers

Chlorinated solvents are gradually being outlawed and methylene chloride-based strippers currently used for aircraft paint removal will soon become unavailable. New strippers based on benzyl alcohol, acidic or alkaline activated are less hazardous, but also much slower acting. Mechanical methods of paint removal, such as bead blasting, tend to be slow and require capital-intensive, dedicated installations.

PPG Aerospace solves this problem by offering a paint system that includes an intermediate coat. This means quick stripping rates can be achieved with neutral benzyl alcohol strippers. PPG Aerospace SSS is also becoming the standard for aircraft types containing substrates, such as composites, which could not be stripped until today.

Uninterrupted Protection Against Corrosion

Although hazardous, chromate is acknowledged worldwide as the best corrosion inhibitor for aircraft structures. OEMs will continue to use chromate-containing primers for the foreseeable future. To maximize its effectiveness, PPG Aerospace SSS allows the chromate-containing primer and conversion coating to remain intact on the aircraft surface while the rest of the paint is selectively removed. This helps minimize the exposure of bare metal to atmospheric, mechanical, or chemical degradation.

- Eliminates environmentally-harmful strippers
- Avoids expensive waste disposal

SSS Saves Time and Money

3

The primer surface is rinsed and cleaned. The new intermediate coat and topcoat are then applied.

4

The aircraft is back in service days sooner than with a conventional coatings system.

Avoids Possible Sanding of Rivet Heads

Many aircraft types have raised rivet heads that can accidentally be removed while sanding an aircraft. Use of the selectively strippable system eliminates the need for sanding and the possible destruction of rivet heads.

Avoids Costly Chromate Waste Disposal

SSS avoids these problems by using more environmentally friendly strippers and by leaving the original, fully-cured, chromate-containing primer and conversion coating in place.

Cuts the Cost of Consumables

Additional and substantial savings are realized when the system is in place because it eliminates the need for a conversion coating, wash primer, or primer when it is time to repaint. The need for masking materials, abrasives, and sealants is also minimized.

Approved Systems for SSS

PPG Aerospace has developed and tested a Selectively Strippable System based on

Coat 1)

- **F580-2080** Epoxy primer or **CA7049** chrome-free low VOC Epoxy primer (Airbus) **or**
- **CA7501** chrome free Epoxy primer for composite (Boeing BMS 10-118)

Coat 2)

- **F565-4010** Intermediate Coat

Coat 3)

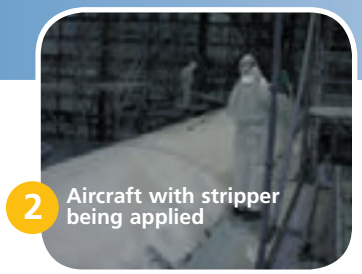
- **CA8000** Desothane® HS low VOC Topcoat or **CA8800** Desothane® HS low VOC buffable topcoat

Intermediate coat and topcoat are the same at both major commercial airframe constructors.

Down-time Reduction

By eliminating full days from the stripping and repainting process, SSS quickly establishes its value. It eliminates the need to re-prime and there is little need for re-sealing, edge stripping, or costly, labor-intensive abrasion stages. Use of new, mild benzyl alcohol strippers makes for a healthier environment and allows users to work without exposure to more unpleasant and aggressive chemicals. What's more, our SSS creates no chromate-containing waste and re-application is achieved without the use of chromated primers.

1 Aircraft ready to be stripped



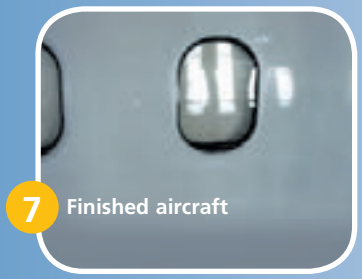
2 Aircraft with stripper being applied

3 Topcoat starting to be attacked by stripper

4 Topcoat further attacked and removed by stripper

5 Topcoat removed by high pressure washing

6 Aircraft cleaned and ready for reapplication



7 Finished aircraft

Case Study

The following case study is based on an actual aircraft strip recently carried out and demonstrates the significant time savings which can be gained by utilization of this process

Aircraft Type	Airbus A319
Paint System	Epoxy Primer F580-2080 Intermediate Coating F565-4010 Low VOC Polyurethane Topcoat Desothane® HS CA8000
Time in Service	68 Months
Paint System Observations	Aircraft found to be in very good appearance.

	Forward Fuselage	Rear Fuselage
1st Application of Paint Stripper	0730 Hrs	0945 Hrs
2nd Application of Paint Stripper	0915 Hrs	1140 Hrs
3rd Application of Paint Stripper*	1015 Hrs	1215 Hrs
Water Rinsing	1230 Hrs	1445 Hrs
Sealant Inspection	1445 Hrs	
Total Elapsed Time	0715 Hrs	

* Note – 3rd application only required to remove painted markings e.g. Logos

Results of inspection	
Coating Removal	Topcoat and intermediate coat completely removed selectively down to external primer
Chromic Acid Anodizing	No Exposure – No Damage
Sealants	Almost totally intact and serviceable
Original OEM Primer	Intact
External Primer	Good surface condition. Minor damage only where local engineering repairs had been made

The system described has been applied on a significant number of new aircraft by OEMs, as well as aircraft in an MRO environment. Over the past several years, many aircraft have been stripped as part of their "D" check and in all cases the system has performed exactly as expected. This factor coupled with the increasing awareness of the benefits of such a system on new aircraft containing higher levels of non-metallic surface area makes the selectively strippable concept a viable option for future aircraft painting as well as offering bottom line cost savings when re-painting is carried out.

APPROVALS

	Specification	PPG Aerospace Paint Scheme
Airbus	AIMS 04.04.014	F580-2080 + F565-4010 + CA8000 Epoxy primer + Intermediate Coat + HS topcoat
	AIMS 04.04.032	CA7049 + F565-4010 + CA8000 Chrome-free Epoxy HS primer + Intermediate Coat + HS topcoat
Boeing	BMS 10-120	CA7501 + F565-4010 + CA8000 Chrome-free Epoxy HS Composite primer + Intermediate Coat + HS topcoat
AMS	AMS 3095A under qualification	F580-2080 + F565-4010 + CA8000 Epoxy primer + Intermediate Coat + HS topcoat
Embraer	MEP under qualification	CA7755 + F565-4010 + CA8800 Chromated Epoxy HS primer + Intermediate Coat + HS topcoat
Bombardier	BAMS 565-022 under qualification	Global Express CA7755 + F565-4010 + CA8800 Chrome-free Epoxy Composite primer + Intermediate Coat + HS topcoat C-Series CA7502E + F565-4010 + CA9000 BCCC Chromated Epoxy HS primer + Intermediate Coat + HS topcoat
PRC-DeSoto Standard		
Commercial and General Aviation	DSO	CA7501 + F565-4010 + CA8000 or CA8800 Buffable topcoat Chrome-free Epoxy Composite primer + Intermediate Coat + HS topcoat CA7700 + F565-4010 + CA8000 or CA8800 Buffable topcoat Chromated Epoxy HS primer + Intermediate Coat + HS topcoat CA7755 + F565-4010 + CA8800 Buffable topcoat Chromated Epoxy HS primer + Intermediate Coat + HS topcoat
Military	DSO	CA7233 + F565-4010 + CA8200 or CA9300 Chromated Epoxy HS primer + Intermediate Coat + HS topcoat

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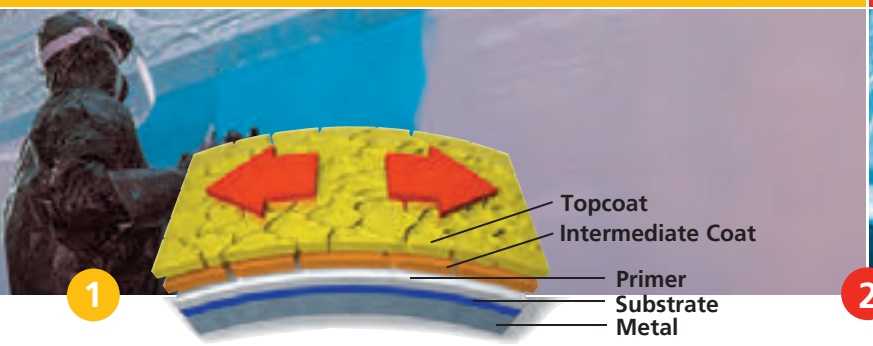

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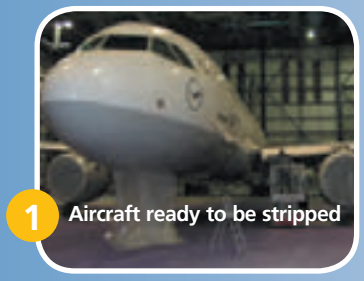

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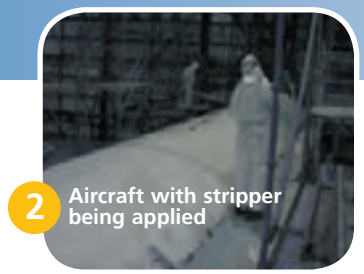

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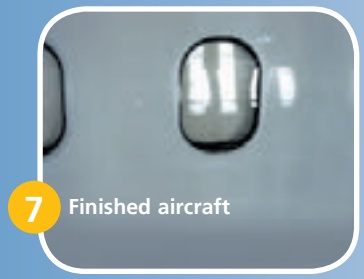

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