

BRAND IMAGE

Passengers often form an impression of an airline based on its livery. **Michael Doran** explores some of the latest methods of painting in aviation

Airlines spend a fortune on their branding and a big chunk of that is for aircraft liveries designed to portray the carrier's image and market position. As the following insights reveal, decorating aircraft is a process where sustainability is high on the agenda and customer expectations are even higher.

MAAS Aviation

MAAS Aviation provides aircraft painting services to all sectors of the aviation industry, including airlines, OEMs, lessors, MROs and VIP operators. It has 13 paint shops and its work is seen on aircraft operated by easyJet, Ryanair, JetBlue, SAS, WIZZ, airBaltic, Aegean and many others. It has been painting aircraft exteriors for more than 40 years, building and maintaining long-term partnerships globally with customers and suppliers to deliver the highest quality workmanship.

When asked about the key to its success, chief commercial officer Richard Marston says that MAAS strives to deliver the most cost-effective and longest-lasting solutions in "best-in-class" turnaround times that minimise out-of-service downtime.

"Customer service is very important to us and the feedback we receive from our customers is that we are really easy to deal with and very quick to resolve any issues that do arise," Marston explains. "Our ultra-modern facilities are custom-built to our own designs to provide the best possible painting environment where we use the very latest products and techniques."

Longevity is a major focus as operators are looking for painting that lasts between heavy maintenance checks, which could be more than six years. MAAS uses basecoat clearcoat systems which give the best chance of a long-lasting coating system.

"The next big jump is likely to be the introduction of water-based and dual-cure technologies that enhance processes and improve material drying times. Basecoat clearcoat systems already give much faster dry to tape times on the colours, but still have long drying times, so this would benefit from faster acting products."

MAAS takes environmental responsibility seriously and its paint shops incorporate the latest climate controls and waste management systems. All paint bays have sump systems to ensure no waste chemicals or contaminated water end up on the apron area.



2

Mankiewicz

Mankiewicz is a leading manufacturer of high technology coating systems for multiple industries, including aviation, automotive, yachting, wind power and more. It was the first to introduce basecoat clearcoat systems. Renè Lang, executive managing director aviation, says the latest innovation involves the paint used on wings, where different coatings are used on the top and bottom surfaces.

Mankiewicz has developed Alexit WingFlex which can be used as a two-in-one solution to coat the upper and lower wing boxes consistently to meet all the requirements wings are exposed to. The upper side requires high flexibility and UV resistance to withstand high compression and sunlight, whereas the lower side must resist harsh chemicals such as hydraulic fluids.

“Combining the need for durability, highest flexibility and chemical resistance is a key USP

of Alexit WingFlex,” explains Lang. “The new system also allows for touch-up and repair, which was not possible with state-of-the-art systems. This saves time, money and unscheduled maintenance or early refurbishment.”

He adds that product performance is the most obvious way Mankiewicz stands out from the crowd, as well as meeting the highest safety requirements, such as corrosion protection for structural parts, FST (fire, smoke and toxicity) properties in the cabin and UV resistance on the aircraft exterior. Design and visual appeal are key to brand appearance and the cabin itself can be enhanced with special effects coatings.

“Process performance must perfectly complement product performance; after all, products that look high quality and unique should still be applied efficiently and cost-effectively,” Lang says. “Mankiewicz doesn’t just start with the final layer, because primer and filler product solutions simplify the path to the perfect surface right from the underlying layers.”

The company has 18 locations in Asia, Europe and the Americas with a customer-oriented network of application experts who can quickly be on site at customer’s paint hangars. As Lang explains, “This exchange of know-how and on site support is the final touch for a perfect surface.”



▲ Renè Lang Mankiewicz

18

Mankiewicz has 18 locations in Asia, Europe and the Americas with a customer-oriented network of application experts who can quickly be on site at customer’s paint hangars

1. Brussels Airlines’ Red Devils and Red Flames livery features Mankiewicz paints and coatings
2. MAAS has 13 high-tech modern paint shops in Europe and the US

“PROCESS PERFORMANCE MUST PERFECTLY COMPLEMENT PRODUCT PERFORMANCE”



1



▲ Richard Marston MAAS

30%

The CA9008 and CA9007 coatings provide superior appearance and coverage, with some colours achieving up to a 30% improvement over competitors, which reduces the amount of paint required

▼ Lufthansa used foils from its Graphic Solutions product for this World Cup livery



“LUFTHANSA TECHNIK’S THIN, LIGHTWEIGHT FOILS ENSURE THEY CAN BE EASILY APPLIED FOR A QUICK CHANGE OF AN AIRCRAFT’S APPEARANCE”

PPG Aerospace

PPG Aerospace (PPG) is a global leader in the development and supply of aerospace coatings. It offers comprehensive support to the aviation MRO sector through a combination of advanced products, colour matching capabilities and a global technical service and support team.

PPG Aerospace global platform director, coatings and sealants, Lirong Bao says: “Our colour experts match broad ranges of solid and effects colours to support airline branding needs and custom liveries. Our technical service representatives are strategically located worldwide to provide on-site assistance tailored to the specific needs of MRO providers and airlines.”

PPG is developing and improving its chrome-free corrosion protection primers, including Desoprime 7521 epoxy primer, which is a high solid, low VOC (volatile organic compound), chromate-free primer designed for both exterior applications and the protection of interior and structural parts of the aircraft.

PPG’s Aerocron is the first electrocoat primer qualified to aerospace specifications and is a water-based, chromate-free primer with very low VOC that can be applied in a way with near zero waste. “Through our technologies of novel corrosion inhibitors and polymer resins, we continue to develop new generations of chrome-free primers with ever improving corrosion protection performance,” Bao adds.

PPG manufactures all its paint schemes in-house to maintain strict quality control and consistency and believes this integrated approach enables it to offer the best technology solutions aligned with each customer’s profile, thereby ensuring operational efficiency and regulatory compliance.

“The CA9008 and CA9007 coatings provide superior appearance and coverage, with some colours achieving up to a 30% improvement over competitors, which reduces the amount of paint required. This efficiency contributes to weight savings, leading to lower fuel consumption and reduced CO₂ emissions.”

Lufthansa Technik

Painting an aircraft’s exterior is time consuming and expensive, so for certain circumstances Lufthansa Technik offers an alternative paint-free solution using aircraft foils. These thin, lightweight foils have a special perforation that ensures they can be easily applied for a quick change of an aircraft’s appearance, with all colours and shapes possible.

Lufthansa Technik’s head of graphic solutions Stefan Thesing says there is a growing demand in the use of exterior foil applications, particularly in the aftermarket segment. Painting is still the standard for an aircraft’s base livery but airlines and MROs are increasingly looking for graphic solutions in cases where flexibility, speed of application and cost efficiency are priorities.

Use cases range from special liveries, temporary branding, aircraft changes between airlines or leasing transitions. Thesing outlines how Lufthansa Technik’s graphic solutions products are viewed not just as aesthetic add-ons but as practical tools for operational efficiency.

“One trend is that airlines are increasingly using aircraft as marketing platforms and graphic solution products offer a cost-effective and reversible way to realise temporary or seasonal designs. Moreover, a decal application can usually take place in a regular aircraft hangar and does not require a specially equipped paint facility. In some cases, graphic decals are also considered more environmentally sustainable than traditional paint.”

The average lifespan of exterior graphics on aircraft is usually five to seven years, depending on the aircraft’s operational profile and environment. However as decals are mainly used for a limited period, they are unlikely to ever actually reach their lifetime limit. ●