Indestructible
® specialist coatings manufacture
19-25 Pentos Drive, Sparkhill,
Birmingham B11 3TA.
T: +44 (0)121 702 2485
F: +44 (0)121 778 4338
E: sales@indestructible.co.uk
www.indestructible.co.uk
www.ipcoatings.co.uk

High Performance Coatings for the Automotive Industry.

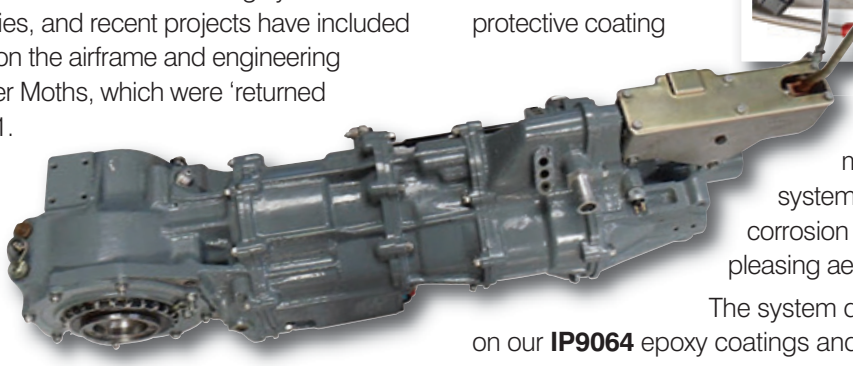
Based on the proven technology supplied to the aerospace industries, Indestructible have a variety of coating systems being adopted in both production and specialist enthusiast areas of the automotive industries.

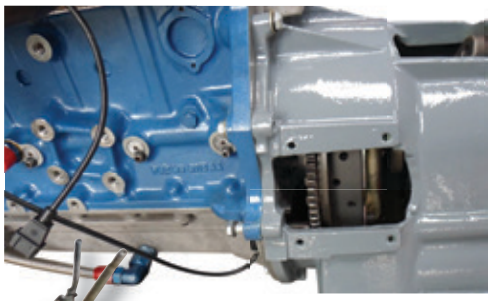
Restoration Systems

We have always prided ourselves on helping with providing both traditional and modern coating systems in the aerospace industries, and recent projects have included full coatings systems on the airframe and engineering components on 3 Tiger Moths, which were 'returned to the sky' during 2011.

During the last 12 months we provided a 'peelable' coating / 2 component Polyurethane to the Fleet Air Arm Museum to return an Agusta helicopter to its original livery as part of the 30th anniversary of the Falklands War.

Building on our work on these projects, during the last year we have worked closely with the previous manager of the Ford 'RS200' rally team of the 1980's, John Wheeler, who is now involved in ongoing restoration of these iconic rally cars. There was a need for a protective coating system for the magnesium transmission systems, to provide both corrosion protection as well as a pleasing aesthetic finish.





The system developed was based on our **IP9064** epoxy coatings and was used on all the magnesium castings on the gearbox, 4WD, front and rear axles, clutch bell-housing and front and rear suspension uprights. "We even used it for giving a first class finish to the inside of the composite body panels," John said.

At the end of July 2012, the completed car competed in the Eifel Rallye Festival in front of a huge crowd of fans. Stig Blomquist was again at the wheel after more than 25 years!

Aesthetic Enhancing Coatings

More and more vehicles are featuring aesthetic enhancing coatings to improve and personalise the finish to ‘stand out from the crowd’.

By re-coating the alloy wheels in bright metal and visually effective finishes a totally personal appearance can be created. Indestructible, working closely with the alloy wheel re-furnishing industry have created a range of special finishes providing the aesthetic appearance demanded.

Although the idea has been in place for over a decade, the use of bright paint finishes on brake calliper parts continue to excite. One issue, however, is the build-up of brake dust ‘sticking’ to the calliper and quickly spoiling the aesthetic finish. Utilising coating technologies used in the ‘non-stick’ industries, Indestructible have developed a range of coatings including PTFE to give ‘dirt shed’ and easy clean. Known as the **IP7985** range, these coatings systems are available in a range of colours, and are used both on original equipment and refurbishment.

Scratches on vehicles are not only aesthetically distracting, but on certain components, can also affect safety. This can be especially so on headlights; where clouding and scratches can reduce the effectiveness of operation.

Many vehicles are now equipped with headlights where the lens has been specially treated with a scratch resistant coating. This is now available for repair and refurbishment.

Working with a specialist applicator, we have utilised coating technologies originally developed for military jet canopies to develop a repair system for vehicle headlights which return the surface to the ‘as new’ finish. Product code **51006** is applied by spray to the headlight lens, which has been cleaned and finely ‘polished’ to remove any surface scratches, damage etc. After application, the coating is exposed to ultra violet light, which rapidly dries the coating to leave an ultra-clear, smooth scratch resistant surface.

Specialist Coatings for Formula 1

Based around the high performance requirements of the aerospace engineering industries, Indestructible work closely with many of the F1 teams, to develop solutions to coating challenges the teams experience. In the majority of cases these discussions are highly confidential, and results and applications are kept as closely guarded secrets.

If you have a need for specialist systems for an auto sport use, please contact our technology team, who would be happy to discuss your needs and develop a solution.

Specialist Coatings for the Enthusiast

Many Indestructible specialist coatings used in aerospace can find uses within the enthusiast’s areas of the automotive industry.

Corrosion is a major problem in any area where metals are used, and this is especially so with steel components in any motor vehicle.

Where components are exhibiting red rust, this needs to be stabilised or removed before any paint treatments are applied.

The simplest method is to treat the red rust with Indestructible ‘Rusteta’. **RUSTETA** is a water based chelating polymer designed for field application to rusted steel which has been hand or power cleaned or sand blasted.

RUSTETA neutralizes the corrosion process. It reacts quickly with the rust and transforms iron oxides into a stable and insoluble blue-black metallo-organic complex which will be ready for painting after reaction.

Reaction time depends upon ambient temperature and degree of rust and it is not necessary to wash the surface with water after reaction. **RUSTETA** is also an excellent adhesion promoter for subsequent coating systems.

Pitan Rust Remover (IP3120) is a harmless way to remove rust from exterior and interior surfaces. This type of coating will not harm hands, clothing or gaskets etc. The coating can also be used to clean brass, bronze and copper. Prolonged soaking of rusted and corroded parts in Pitan Rust Remover will not damage them.

Pitan Rust Remover is non-toxic, non-combustible, odorless and gives off no fumes.

Unlike strong aqueous solutions of phosphoric and hydrochloric acids, Pitan Rust Remover removes iron oxide by a mild complexing action, and does not attack the molecular structure of the unrusted metal.

Laboratory research and practical application of Pitan Rust Remover has revealed that this solution removes rust efficiently from the interior of closed systems including inside the engine block of large and small engines and any areas where rust needs to be stabilised.

Aluminium Filler **(PL130A)**, a three part solvent free epoxy aluminium paste can typically be used to fill deep scratches and holes within bodywork and chassis components.

Unlike the more usual polyester fillers, **PL130A** contains a high percentage of aluminium which provides structural strength and stability. The coating is resistant to a wide range of chemicals, and extremes of heat and cold. Based on a stable resin system it offers a long pot life, low exotherm and minimal shrinkage.

For areas requiring low friction or lubrication, a fast dry molybdenum disulphide containing coating is available. Originally designed for use on blade roots in aircraft turbine engines, the coating **(PL470)**, offers excellent dry lubrication and resistance to fretting and galling on moving parts.

IP9036-R1 is a high temperature one part silicone, anti-corrosive air-dry coating. Suitable for application by dip, spray or brush, it will withstand operating temperatures of up to 650°C. The coating is permanently resistant against temperatures of up to 300°C. It can be used on a wide variety of metals for example aluminium, magnesium, steel and titanium.

IP9138-R1 is a heat and skydrol resistant air drying aluminium coating supplied in aerosol. In addition to heat resistance it also offers excellent chemical resistance.

Both **IP9036-R1** and **IP9138-R1** can be used on exhaust manifolds, exhaust pipes and other areas within auto sport where a high temperature resistant coating is required.

For more information on any of the products described in this brochure, please email our sales team at **sales@indestructible.co.uk** or visit our website, **www.indestructible.co.uk**.