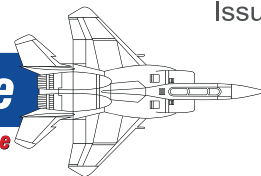


**Indestructible**

® specialist coatings manufacture



# High Performance Coatings for the Automotive Industry

Based on the proven technology supplied to the aerospace industries, Indestructible Paint 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 coating systems on the airframe and engineering components on 3 Tiger Moths, which were 'returned to the sky' during 2011. We have 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, 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 coating developed was our IP9064 epoxy coatings, used on all the magnesium castings on the car gearbox,

4 wheel drive, front and rear axles, clutch bell-housing and front 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 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 Paint, working closely with the alloy wheel refurbishing 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 continues 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 Paint have developed a range of coatings including PTFE to give 'dirt shed' and easy clean. Known as the IP7985 range, these coating 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 specifically treated with a scratch resistant coating. This is now available for repair and refurbishment.

Indestructible Paint, working with a specialist applicator, 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 Paint work closely with many of the F1 teams, to develop solutions to coating problems the teams experience. In the majority of cases these discussions are highly confidential, results and applications are kept as closely guarded secrets.

If you have a need for specialist systems for an autosport 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 Paint 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 Paint '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.



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.

Will also clean:

- Brass
- Bronze
- 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 i.e.

- Inside the engine block
- Large and small engines
- Any areas where rust needs to be stabilised

Aluminium Filler (PL130A), a three part solvent free epoxy aluminium paste, typically used to fill deep scratches and holes within bodywork chassis. Unlike the more usual polyester fillers, PL130A contains a high percentage of aluminium which provides structural strength and stability. Resistant to a wide range of chemicals, and extremes of heat and cold. Based on a resin system, offers a long pot life, low exotherm and minimal shrinkage.

For areas requiring low friction of 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 pure silicone (not silicone modified) anti-corrosive coating air-dry, dip or spray applied which will withstand operating temperatures of up to 650°C. The coating is permanently resistant against temperatures of up to 300°C combined with good solvent and chemical resistant. 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 aerosol. This is predominantly a cosmetic aluminium coating originally designed to touch-up aluminium painted surfaces to cover oil stains etc.

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



## IP9064 Range

A 2 part air drying epoxy finish for interior and exterior use. Initially available in the range of colours and finishes listed on our Colour Range document, this range will probably be increased to comply with customer demand.

Resistant to abrasion, corrosion and most aircraft operating fluids and chemicals.

Can be used on all the magnesium castings on the car gearbox, 4 wheel drive, front and rear axles, clutch bell-housing and front rear suspension uprights.

## IP7985 Range

A temperature resistant baking epoxy finish enhanced with fluoropolymer additives to provide a wear resistant low friction coating. The choice of binder resin and additive employed in IP7985 provides excellent adhesion and protection properties for a wide range of ferrous and non-ferrous substrates.

Examples of this coating find uses as diverse as Brake Calipers for higher performance luxury and sports cars to drill pipe sensors for the Oil and Gas exploration industry.

## 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 neutralises 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.

## IP3120

Pitan Rust Remover is a harmless way to remove rust from exterior and interior surfaces. Pitan Rust Remover is non-toxic, non-combustible, odourless, no fumes.

## IPSLIP-7470

A Quick air drying Molybdenum Di-Sulphide Dry Film Lubricant.

## IP9036-R1

High temperature one part pure silicone, (not silicone modified) anti corrosive coating air dry, dip, or spray applied which will withstand operating temperatures of up to 650°C. The coating is permanently resistant against temperatures up to 300°C combined with good solvent and chemical resistance.

## IP9138-R1

Heat resistant air drying enamel for use with IP9139, PL101 and IP9029 heat resistant stoving enamel as a touch up.

Resistant to ester lubricants, Skydrol, heat and corrosion.

## IP9138-R1 Aerosol

Product is also available in a 400ml Aerosol

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**Full technical information is available for all the products discussed on this information sheet. Please contact our sales office for further information.**

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