RHINOPHALT®

FREQUENTLY ASKED QUESTIONS

Process and Product

WHAT IS RHINOPHALT?

Rhinophalt is a unique, innovative and sustainable method of making bituminous bound surfaces, like asphalt, macadam and surface dressing, last longer.

Likened to a 'wood preservative' for asphalt, Rhinophalt is a cold spay, rapid cure surface treatment, which penetrates into the bituminous material and protects the surface against the damaging effects of frost, water ingress, weathering and oxidisation. Following the chemical re-engineering of the existing binder, Rhinophalt seals in the oils and resins, which are essential to retain the flexibility of the treated pavement. Rhinophalt also increases surface tensile strength as well as having excellent penetrating and binding qualities, thereby improving resistance to abrasion and stone loss.

IS RHINOPHALT A ONE-OFF TREATMENT?

ASI recommend that the Rhinophalt treatment is repeated every 4 to 5 years. Regular reapplication will continue to delay the deterioration of the asphalt or macadam asset.

WHERE CAN RHINOPHALT BE USED?

Rhinophalt can be used anywhere where there is a bituminous bound surface, including roads and highways, airfields, car parks and pedestrian infrastructure.

CAN RHINOPHALT BE USED ON HIGH SPEED ROADS?

The Rhinophalt process has been designed for use on high speed roads, where comprehensive testing to treated areas has demonstrated satisfactory readings for both skid resistance and texture depth. Short term SRV reduction is mitigated by the application of a sacrificial Black Rhino Grit which provides short-term grip whilst at the same time stripping the Rhinophalt from the surface aggregate.

CAN RHINOPHALT BE USED ON AIRPORT RUNWAYS?

Rhinophalt has been safely and successfully applied to a number of airport runways, both civil and military. ASI understands that safety and SRV are paramount in an airside environment and the Rhinophalt Method Statement for Airfields favours the use of steel brush sweeping rather than Black Rhino Grit as a means of restoring SRV whilst avoiding the risk of FOD.

IS RHINOPHALT APPROVED?

Rhinophalt holds full UK BBA and HAPAS approval, as well as accreditation in India and Bahrain.

WHO CURRENTLY PRESERVES THEIR ASPHALT?

- DBFO companies.
- Super Agencies.
- Local authorities.

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- Commercial and civil airfields
- Automotive test tracks
- Retail parks and supermarkets

Benefits

How Will Using Rhinophalt Benefit Me?

Rhinophalt ensures that the asset that you own, or are responsible for, lasts much longer and, with the growing divide between maintenance costs and available budgets, these benefits can only increase with time.

Why Should I Move to Preventative Maintenance?

Historic records have clearly demonstrated that preventative maintenance is 10 times less expensive than reactive measures. Additionally, the environmental benefits and minimisation to user disruption that can be attained through the adoption of a proactive approach are enormous.

Health & Safety

Is Rhinophalt a Safer Option Than Conventional Methods?

With the associated reduction in disruption from maintenance works, there is a very strong HSE argument supporting the use of Rhinophalt. Additionally, with the preserved condition of the treated pavement, the subsequent reduction in potholes and other surface defects can only result in a safer infrastructure generally.

Cost

Is Rhinophalt Value for Money?

Rhinophalt is very competitively priced. Cost comparisons against conventional resurfacing show substantial savings in all applications and in some cases as much as 50% savings have been recognised. Given the ever increasing cost of new asphalt and macadam materials, these savings are only going to become bigger in the future.

Technical

Can ASI Prove The Longevity Of Rhinophalt?

Worldwide, Rhinophalt has been installed on over 1.5 billion square metres of road, airfield and pedestrian infrastructure and holds a proven track record of sustainable maintenance. In the UK alone we have 26 year old asphalt surfaces which remain in excellent condition following Rhinophalt application. We are happy to provide more information on these case studies upon request.

When Should Rhinophalt be Applied?

In order to retain the most value out of the asset, Rhinophalt is best applied to pavements that are in good condition. Notwithstanding this, Rhinophalt can be used

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effectively to retard the deterioration of bituminous bound surfaces in any condition as part of individual asset management strategies.

WHY WOULD I USE RHINOPHALT ON AN OLD SURFACE?

Ideally, Rhinophalt would initially be used to preserve asphalt in its early life, but Asset Managers often use the process to preserve bituminous surfaces, which are in the latter stages of their functional life. This option may be taken due to changes in surfacing programmes or where resurfacing budgets are not available thus forcing the Asset Manager to find a way of getting a few more years life out of the affected pavement.

WHAT PREPARATION IS REQUIRED PRIOR TO THE APPLICATION OF RHINOPHALT?

The area to be treated needs to be clean and dry with a minimum surface temperature of 5°C. Cats eyes, lights and ironwork should be masked and any affected line markings can either be taped off or be replaced once the Rhinophalt treatment has cured.

HOW IS THE TEXTURE DEPTH AFFECTED BY RHINOPHALT?

The HAPAS accreditation testing showed little, if any, change in the texture depths on all types of asphalt and macadam surfaces. Subsequent texture depth testing has remained consistent with these findings.

CAN RHINOPHALT FAIL OR DAMAGE AN ASPHALT OR MACADAM SURFACE?

The impregnated Rhinophalt treatment becomes an integral part of the surface material and, consequently, there is nothing to fail, much like creosote in wood. Additionally, comprising of natural mineral asphalt, there is nothing within the Rhinophalt material that could cause any realistic form of damage to the treated pavement.

WHAT CAN THE RHINOPHALT PROCESS DO FOR SURFACE DRESSING?

Rhinophalt can be used very effectively on surface dressing as it prevents deterioration through oxidisation of the bitumen binder. Additionally, the Rhinophalt treatment can help to prevent the bitumen rich dressing from 'bleeding' in hot weather due to the excellent heat resistant properties of the gilsonite.

CAN RHINOPHALT BE HAND-APPLIED?

Rhinophalt materials can be applied with a hand lance for small areas, or sites with restricted access.

IS THE APPLICATION OF RHINOPHALT WEATHER DEPENDANT?

Rhinophalt needs to be applied to a dry surface with a pavement temperature between 5 and 60°C.

HOW LONG DOES RHINOPHALT TAKE TO CURE?

The curing time of Rhinophalt will be determined by ambient temperatures, UK experience has shown this period to be between 1.5 to 2.5 hours. However, in warmer climates such as in India, drying times can be as low as 40 minutes.

Environmental

WHAT ARE THE Co_2 EMISSIONS FROM THE RHINOPHALT MATERIAL?

Independent environmental studies have been undertaken in comparing the use of Rhinophalt to conventional maintenance. Historic records have demonstrated that with

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the pro-active use of 2 Rhinophalt treatments it is likely to double the functional life of an asphalt or macadam surface. To this regard, the use of Rhinophalt will deliver a 94% reduction in CO_2 emissions when compared with a traditional re-surfacing alternative.

What Other Environmental Benefits can the Rhinophalt Process Deliver?

The Rhinophalt preserved surfaces will minimise the occurrence of potholes and other surface defects which will deliver substantial environmental benefits. Any minimisation of re-surfacing will also deliver tremendous environmental benefits with regard to minimised natural aggregate extraction, eliminated waste and vastly reduced disruption to the user and the general public.

Procurement

How do I Assess if a Site is Suitable for Rhinophalt?

While Rhinophalt will work on all bituminous bound surfaces, specific levels of site sustainability will be determined by the relevant asset management strategy together with the existing surface conditioning of the proposed pavement. ASI remain freely available to offer assistance to this regard.

How will I Know That the Rhinophalt Process will be Properly Installed?

ASI do not undertake contracting works themselves, all Rhinophalt contracting work is undertaken by carefully chosen Authorised Installers using computerised application equipment and pre-agreed method statements to ensure that the project is completed correctly, efficiently and professionally.

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