

HUESKER Chipseal Grid

Extends the service life of spray seal pavements

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The HUESKER chipseal grid consists of a highly resistant composite engineered for spray seal applications. The combination of a paving geotextile with an added reinforcing grid provides both a waterproofing and reinforcement function, resulting in a more durable and cost-effective rehabilitation than conventional methods.

The geotextile component comprises a nonwoven with optimum bitumen retention capacity. When impregnated with bitumen it acts as a barrier to the ingress of water, protecting the pavement structure. The integrated biaxial reinforcing grid made of high tenacity polyester yarns strengthens and supports the sealed surface by improving the rupture behaviour of the geotextile. Additionally, it contributes to a significant delay in crack propagation. The optimised design also assists with reduction of bitumen migration (bleeding) while enhancing aggregate retention on the surface.

HUESKER chipseal grid's flexibility and strength permits its installation on existing as well as milled surfaces and provides a strong bond to the underlying surface.



Product Features

- Paving geotextile with specialised spray seal reinforcing grid
- Made of PET or recycled PET
- Tensile strength of minimum 30 kN/m biaxial
- Standard roll widths up to 5 m, and customised production capability
- Waterproofing and reinforcement function



Chipseal grid installation



Chipseal grid covered with spray seal

Why choose HUESKER chipseal grid

Durability

The integrated reinforcing grid provides superior performance and keeps the surface free from cracks/defects for longer.

Waterproof

The nonwoven with optimum bitumen retention capacity keeps the pavement structure watertight.

Reliable

The service life of the spray seal pavement is extended as the chipseal grid effectively delays reflective cracking.

Surface stability

The optimised design in conjunction with the bitumen bond coat provides a consistent and uniform layer. This helps to reduce "bitumen migration" in comparison to conventional solutions while increasing aggregate retention.

Break-resistant

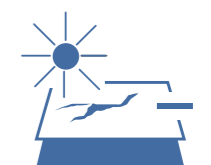
Due to the much higher "in-service" tensile strength of the reinforcing grid the chipseal grid is more resistant to rupture under loading compared to a conventional paving geotextile.

Protective

The combination of a paving geotextile and a reinforcing grid protects the underlying pavement asset. This makes it an even more sustainable solution environmentally, commercially as well as operationally.

Sustainability

Also available from 100% recycled PET geogrid, further enhancing the sustainability benefits in delivering longer lasting spray seal roads and pavements.



Proven Performance in Spray Seal Pavements

Controlling Cracking in a double/double seal with Chipseal grid

Gore Highway, QLD, Australia

The pavement of the Gore Highway, in the Darling Downs Region was presenting severe cracks and surface defects as shown below. A reseal with a double/double sprayed seal was planned. To mitigate propagation of the existing cracks and failures into the new double/double surface, HUESKER chipseal grid was installed in March 2020 in a section of the highway and the seal performance has been monitored since in direct comparison to an adjacent control section.

In March 2021, after one year in service, it was verified that the control section with double/double seal only (without reinforcement) was already presenting reflective cracks, and major surface defects particularly in the wheel path. The reinforced double/double seal section with HUESKER chipseal grid, on the other hand, was found to be free from cracks and defects despite the severity of the underlying conditions in this case.

In addition, the unreinforced control section was showing notable signs of bitumen migration/bleeding from the underlying sealed cracks accelerating the failure process in the new double/double surface. In contrast, the reinforced section with the HUESKER chipseal grid was found to be significantly more uniform and intact.

HUESKER chipseal grid effectively delays pavement deterioration and extends the service life of spray seal pavements. For further information about the HUESKER product solutions – chipseal grid – please visit our website or contact us directly.



Spray seal construction
Constructed double/double sprayed seal above chipseal grid.



Installed chipseal grid
Chipseal grid placed onto a bitumen Bond Coat, prior to the application of the Seal Coat



Condition prior to double/double seal
Prior to the reseal the road surface was in a poor condition showing severe cracks and surface defects. Large cracks were enabling water intrusion into the pavement structure and causing its deterioration, and requiring frequent crack sealing.



HUESKER chipseal grid installation on the existing surface
Unrolling and installation were simply carried out by using an installation frame followed by the bitumen seal application.

Performance after one year



Control section (without reinforcement)
One year after the reseal, the control section is showing reflective cracks and surface defects, in addition to signs of bitumen migration. This section had to be repaired since.



HUESKER chipseal grid section
The section of the highway reinforced with chipseal grid is showing no reflective cracks and no surface defects. The seal is performing significantly better in this section and the pavement remains in good condition, as verified by the Road Authority.

HUESKER Services

HUESKER services begin with providing initial advice and end with supporting the realisation of the project on site. What we provide are safe, customised, economically viable and ecologically sound project solutions.

Engineering Services

Technical consulting

We will recommend the appropriate product types for your specific requirements.

Technical design

Our engineers will be delighted to assist you by performing verifiable design calculations and checks in accordance with recognised methods.

Project-specific placement plans

We will prepare installation and placing recommendations plus installation diagrams.

Sharing of our extensive knowledge

Best-practice solutions and techniques from our global network.

Product Services

Custom designed product solutions

We will assist you in developing customfabricated products to meet your particular requirements.

Alternative solutions

We will propose alternative design solutions as well as recommendations for adjustments and optimisations.

On-The-Spot

On site instruction

Where required, our application technicians are ready to offer assistance, even directly on site.

Installation aids

We can offer you practical installation aids to facilitate the application of our products.

Training

Documents

Certificates

Our products have been issued numerous certifications, for example, by BAM, BAW, BBA, EBA, IVG and SVG, depending on the product type.

Installation guidelines

Technical guidelines will help you to ensure the best-practice installation of your product on site.

Tender documents

We would be happy to provide you with proposals for your specification texts.

Digital

Website

Here, we offer you news, videos, project reports, installation guidelines, specialist articles, scientific publications, software, brochures and much more.

You will also find us on Facebook, LinkedIn and YouTube.



HUESKER Synthetic is certified to ISO 9001 and ISO 50001.



HUESKER Australia Pty Ltd

23 Dacmer Rd
Coolum Beach QLD 4573
Phone: +61 (0) 7 3088 8000
Mail: office@HUESKER.com.au
Web: www.HUESKER.com.au

