

EcoFlakes

Asphalt to close the loop.



More performance - for less money

EcoFlakes are a **bitumen and polymer substitute** for asphalt made from selected **non-recyclable plastics**.

They contain polymers known from PmB and significantly improve the performance properties of asphalt.

EcoFlakes are used cost-neutrally in unmodified asphalt or cost-reducing in previously polymer-modified asphalt.

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Extended
lifetime

Up to 30%
less CO2

Up to 10 %
bitumen substitute

Less expensive
than bitumen

A photograph of a long, straight asphalt road stretching into the distance, flanked by dense evergreen forests. The sun is low on the horizon to the left, creating a bright lens flare effect over the road.

Features

EcoFlakes were developed in several years of research with the Fraunhofer ICT and the University of Kassel and have been tested in more than 10 roads. The oldest test track is from 2011.

Lifetime

- Increased resistance to rutting &
- Stiffness at high temperatures
- Good recyclability due to slower binder ageing
- No negative impact on low-temperature flexibility, workability and compactability

Ecology

- Up to 30% less CO₂ in asphalt production
- Circular use of non-recyclable polymers
 - Substitution of up to 10% of bitumen

Areas of application

- Performance improvement and life extension in all layers for SMA and AC mixes.
- Compatible with other polymer modified bitumens
- Suitable for all load classes

Costs

- Improved performance without additional costs
 - Cheaper than standard bitumen
 - Price stable



Manufacturing process

Only a road that lasts longer contributes to sustainability. That is why EcoFlakes must only contain polymers that have a positive impact on the performance and recyclability of the asphalt.

Sourcing of plastics

Before a waste stream is considered for the production of EcoFlakes, the exact composition of the polymers is determined, any interfering substances are identified and the ecological and health safety is verified.

EcoFlakes production

For solubility in bitumen, the polymers are chemically modified. This is followed by a three-stage quality assurance process to ensure homogeneity and emission-free use.

Reuse

EcoFlakes slow down the oxidative ageing of binders. The recyclability is therefore preserved. When using RC asphalt, EcoFlakes can be counted towards the fresh binder content.



Feel free to contact us if you...

- **Need more technical information about the product.**
- **Are interested in a pilot project or cooperation.**
- **Want to obtain a laboratory sample.**

