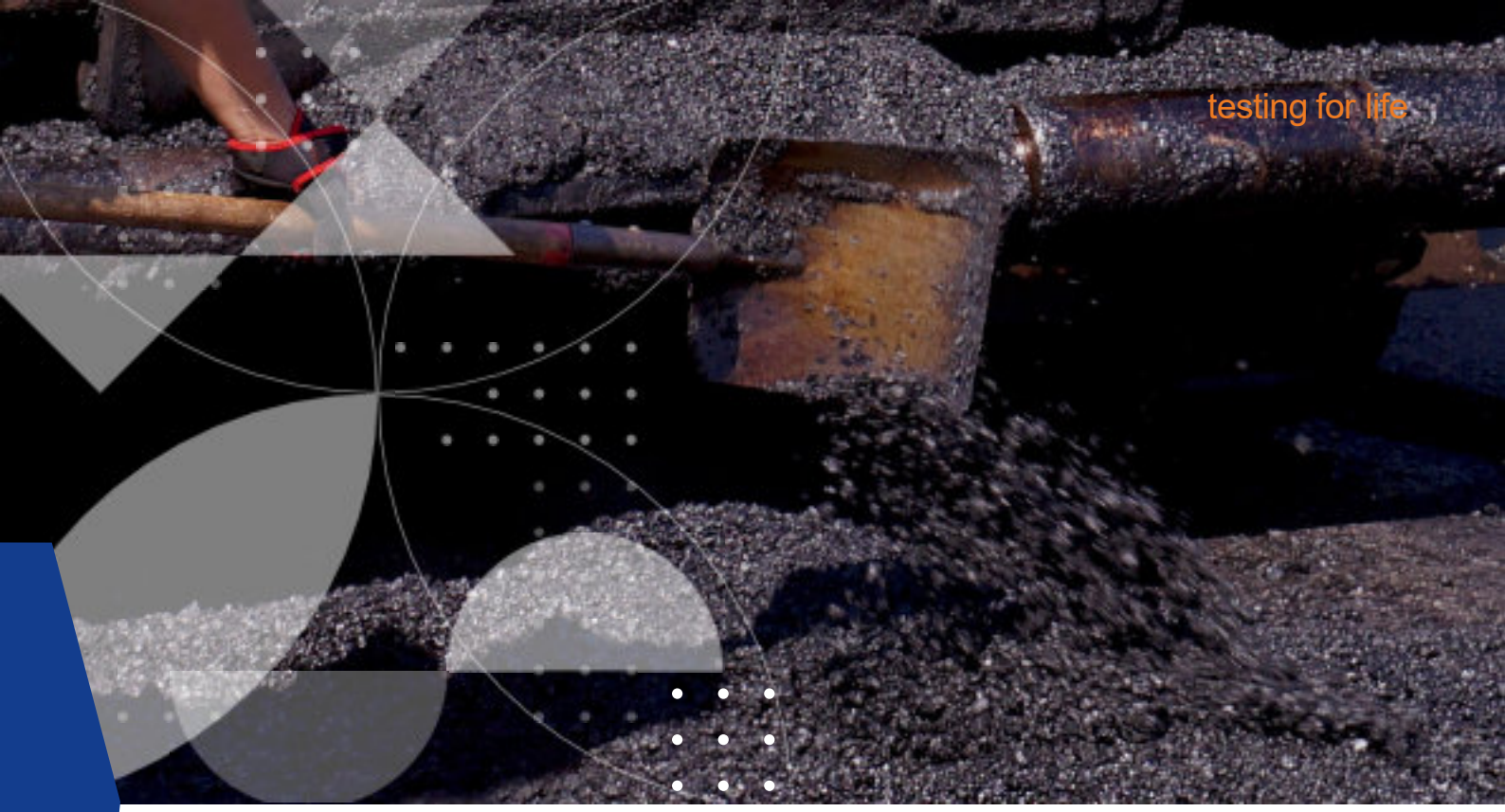

Asphalt

Until January 2001, the usage of tar-containing asphalt was allowed on Dutch roads. In tar-containing asphalt, the binder contains a high concentration of carcinogenic PAH (Polycyclic Aromatic Hydrocarbons) compounds. This carcinogenic property can have major health consequences.

Why an asphalt analysis?

After 2001, the use of tar-containing asphalt was prohibited and the policy was aimed at preventing this harmful PAH from spreading in the environment. Environmental hygiene research on milled asphalt is therefore an important aspect of road construction work. A reliable and accurate determiniation of the tar content is of great importance. The analysis results are used to determine whether the asphalt can be reused.

Legislation

The rules regarding the use of old asphalt are included in the Soil Quality Decree. The decision defines that the reuse of non-tar-containing asphalt concrete in road surfaces is permitted if, in accordance with the provisions of CROW publication 201, 'Guideline for dealing with released asphalt', it is demonstrated that the material doesnot contain tar. ThisCROWpublication sets out exactly what the quality requirements are, to which the determiniation of tar retention must comply.

The two most important guidelines are:

- The carrying out laboratory must be accredited by the Accreditation Council against NEN-EN-ISO/IEC-17025 for the determination of the layer thickness and for the analyzesof PAH in asphalt.
- Thequantitative PAH analysisshould be performed by Petroleum Ether (PE) extraction in combination with the GCMSanalysis method.

Asphalt plants may only accept asphalt if research, in accordance with CROW provision 210:2015 has shown that the asphalt does not contain tar. This means that, where in the past analysis of asphalt could be carried out by a non-accredited laboratory, this is no longer permitted. This applies to the entire analysis process. These stricter rules provide even higher quality assurancefor determining the tar content of asphalt.

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Analyses by Eurofins

Eurofins is a NEN-EN-ISO/IEC-17025 accredited laboratory and is accredited for the determination of the construction structure, PAH detector and the quantitative determination of PAH compounds with using GC-MS in asphalt. Eurofins Analytico complies with the stated conditions of laboratory research in CROWpublication 210. Because Eurofins is accredited for the GC-MS analysis, the time-consuming and expensive DLCmethod can be skipped.

Tar-bearing asphalt

First, the laboratory can perform a so-called PAK detector test. Using this test, it can be qualitatively determined for each layer whether it is potentially has a PAH presence or not. If the PAH detector test results are positive, the tar content is so high (>250 mg/kg) that this layer may not be reused. Below this limit, further research is necessary. Subsequently, the layers that give a negative result are usually analyzed quantitavely for PAH using the GC-MSassay.

More information

Samples can be collected at the desired location or at a depot. Eurofins' logistic services can be reached at 0800- 0991180 or logistiek@etbnl.eurofins.com.

For additional information regarding analyses, reporting, rates, delivery times, service and more, please contact the designated contact person or the customer service during office hours.

About Eurofins Environment Testing

Eurofins Environment Testing Netherlands is part of Eurofins Scientific and your partner for environmental testing.

Our goal is to help you achieve your objectives. With efficient and qualitative analysistechniques wesupport your business processes. Our customer service is at your disposal with specialized knowledge and extensive experience. You can make use of our own packaging and logistics service. Our reliable couriers take care of sample transfer on site and transport the samples to the relevant laboratory the same day.

Eurofins Environment Testing Netherlands is committed to protecting the environment. With our products and services, we support the responsible use and minimization of substances harmful to humans and the planet. Examples include hormones, pesticides, dioxins and heavy metals. By reducing the usage of water, raw materials and energy, we contribute to sustainability. Our laboratories have developed special programs to minimize environmental risks, such a safe use of chemicals and waste disposal.

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