

Press release

15 July 2024

The Environmental Board recognised tyre bales made from waste tyres as a product

On 14 June 2024, the Environmental Board issued an amended environmental permit to Wastedirect OÜ, allowing the company to produce selected waste tyre bales at its production unit in Ääsmäe for recycling purposes. These can be used in the construction of roads and other infrastructure projects, such as shooting ranges and noise barriers.

‘We have been ready for this day for over four years. We submitted our first application on 14 April 2020 and obtained the right to produce and use the bales upon applying for a new waste permit or registration starting from 17 September 2020. Although the Environmental Board allowed us to produce and use waste bales on the basis of a so-called individual permit, the situation did not provide sufficient certainty for infrastructure designers or for us as entrepreneurs,’ explained **Martin Linnupõld**, member of the management board of Wastedirect OÜ. ‘Over four years and two months, during which we went through court proceedings, we achieved the amendment of the environmental permit. The dispute was not about environmental requirements, but about the potential demand for tyre bales as a product,’ added Linnupõld.

The amended environmental permit allows for an annual production volume of 25,000 tonnes of tyre bales.

According to the Waste Act, waste ceases to be waste once it has undergone a recovery operation, including recycling, and the substance or object is commonly used for a specific purpose and has a market or demand. The substance or object must fulfil the technical requirements for the specific purpose and meet the legislation and product standards, and the use of the substance or object will not lead to adverse environmental or human health impacts.

In the opinion of the Consumer Protection and Technical Regulatory Authority, the product conformity has been verified.

If recognition as a product leads to a clear increase in demand, the company can apply for an amendment to the waste permit and an increase in quantity. The environmental permit stipulates that the produced product must be marketed within three years.

‘Tyre bales have been a good recovery option for us as a producer responsibility organisation. The environmental permit issued to Wastedirect further increases our confidence,’ said **Einar Teesalu**, member of the management board of MTÜ Rehviringlus:

Tyre bales have been successfully used in a wide range of conditions considering road type, loads and environmental conditions. Based on usage experiences in different countries, there are few restrictions on the use of tyre bales (or more broadly, waste tyres), provided their use is part of a project solution. For example, in the construction of the A42 dual motorway near Bedford, UK, tyre bales were used as part of the embankment on weak clay soil. In Estonia, tyre bales have been used in the reconstruction of the Läpi-Ojaküla road, which supports heavy equipment of the Defence Forces. Additionally, tyre bales have been used in the construction of various protective structures and shooting ranges.

The advantage of using tyre bales is their lightness, which is three times lighter than compacted sand, allowing the construction of roads and other structures on soils with lower load-bearing capacity. Additionally, tyre bales have high water permeability, similar to gravel, which provides them with a

significant advantage in road construction. Water quickly passes through the tyre bale in unpaved roads, both from the top and across, resulting in faster drying of the road and reducing the risk of the forest on one side drying out while the other side is flooded if the road culverts are clogged. It is important to note that due to the lightness of the tyre bales, but with their volume retention properties, the number of trucks transporting construction material to the site is reduced threefold in road construction compared to traditional construction materials. The amount of materials extracted from quarries used for the same road section is also reduced three times.

The footprint of tyre bale production is over 10 times smaller than that of tyre chip pyrolysis.

Wastedirect OÜ is a company engaged in the recovery of sorted materials and has been operating in Harju County since 2018.

Additional information:

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