

**RECYKLACE PRYŽÍ
PNEUMATIK NA
SAZE
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Sustaining carbon black developments

**CHYBA –
patří PAH**

Sustainability issues continue to dominate development trends in carbon black for plastics compounds. Whether it is concern about volatiles **PHA** levels, or the circular economy, carbon black producers are working hard to create products that offer improved health and general well-being for plastics compounders, processors, end-users, and the public at large. Prime among these developments is production of carbon black from alternative sources or routes, with Netherlands-based **Black Bear Carbon** claiming considerable forward momentum. "Black Bear has made great progress towards establishing an environmentally friendly and high quality alternative for regular furnace carbon blacks," says Rick Leunissen, Head of Commercial and Business Development at the company, which produces carbon black from used tyres.

In June this year, Black Bear became the first organisation worldwide to obtain "cradle-to-cradle" certification for its carbon black products. "In addition, Black Bear obtained technical product approvals and first commercial orders at multiple plastic compounders including several leaders in the masterbatch industry, as well as for automotive end applications," Leunissen says.

The Cradle-to-Cradle Bronze Certificate came from the Environmental Protection Encouragement Agency (EPEA) in Hamburg, Germany. "The certification activities led to a reconfirmation that Black Bear's carbon black has extremely low levels of harmful polycyclic aromatic hydrocarbons (PAH)," the company said in a statement when it announced the certification. Achieving low

levels of PAH is becoming increasingly important given health concerns and increased scrutiny over hazardous substances through the EU Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) regulation.

Michael Braungart, Founder and CEO of certifier EPEA, says: "The Black Bear Carbon upcycled product is a game-changer in the field of carbon black."

Leunissen claims that Black Bear can match the performance of numerous regular furnace carbon blacks. "Most notably, improvements in dispersibility of our pellets now allow successful use of our carbon blacks across more and more compounding methods," he says.

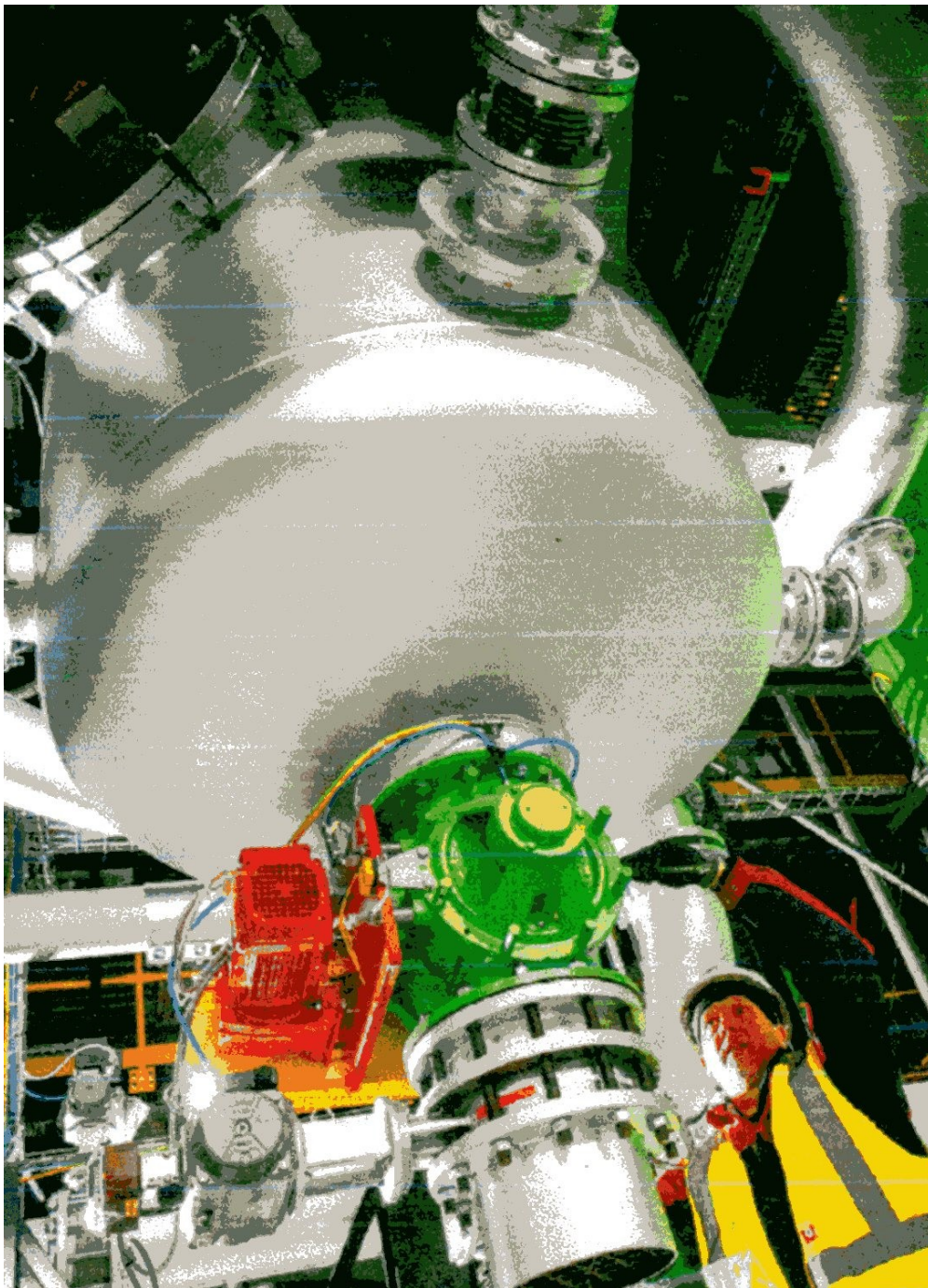
Seeking sustainability

Leunissen says his company is seeing many plastic compounders that use recycled plastics broadening their sight to also use other sustainable raw materials in their processes, particularly pigments. "Therefore, a significant interest towards our sustainable carbon blacks can be observed," he says. "Secondly, there's been an increased focus in the market on PAHs, not only for applications that are related to food or human skin contact but many compounders also value a 'cleaner' product when regulation is not as stringent. That said, with our



NEPtune-range, Black Bear is able to supply carbon blacks that need to be in compliance with EU regulation no. 10/2011."

Black Bear currently has a production capacity of 5,000 tonnes/y at its facility at Nederweert, in the Netherlands. Leunissen says the company is planning an expansion and expects to be able to announce new projects early next year.



Pulverizace (mletí na prášek) u firmy BACK BEAR CARBON (Holandsko)

Germany's **Pyrolyx** is another developer of technology for the extraction of carbon black from end-of-life tyres and claims to be the market leader. It announced in late August that it was commencing construction of a recovered carbon black (rCB) plant at Terre Haute, Indiana, in the US. When completed, the plant - which Pyrolyx claims will be the most advanced of its kind - will produce close to 13,000 tonnes/y of rCB, as well as pyrolysis oil and steel.

The company already has a plant in production in Germany, which is operated by its CCT Stegelitz subsidiary. The two plants together will consume around four million used tyres each year. Niels Raeder, CEO of the Pyrolyx Group, says that the company has already signed long-term purchase contracts for first carbon black production from the new plant.

Provoz firmy PYROLYX

