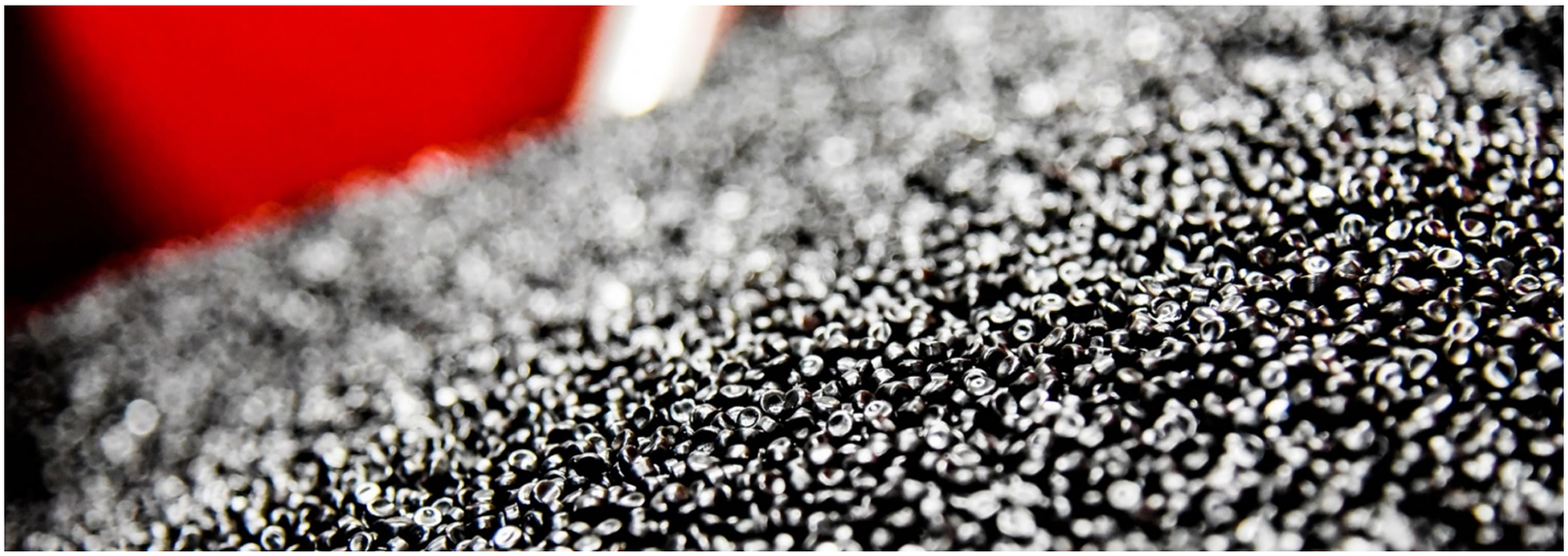
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NEW GRADE OF PIPE LAUNCHED

ZapSibNeftekhim has started to produce black polyethylene granules for pipes.

ZapSibNeftekhim has launched the production of a new grade of polyethylene based on PE100, known for its black granules and strong resistance to the outside environment. The grade is mainly used to produce pipes for various industries where an alternative to steel is in demand.

The ZapSibNeftekhim team worked with specialists from suppliers of equipment and carbon black, as well as the licensor, the British petrochemical company INEOS, to operationalise the technology.

ZAPSIBNEFTEKHIM HAS LAUNCHED THE PRODUCTION OF A NEW GRADE OF POLYETHYLENE BASED ON PE100, KNOWN FOR ITS BLACK GRANULES AND STRONG RESISTANCE TO THE OUTSIDE ENVIRONMENT

“Pipes made from this material, which is similar to PE100, boast a higher performance because carbon black – more commonly known as soot – is added to the initial polymer,” comments Marat Gilmanov, Head of Finished Products at ZapSibNeftekhim. “Carbon black is a type of carbon that can be found widely in nature in various compounds. Coal, graphite and even diamonds are all made from carbon. Carbon black is added to the initial polymer along with a number of additives that prevent it from being destroyed when subject to heat, for example during welding. The resulting polymer degrades slower under ultraviolet light, which gives the polyethylene pipe an estimated service life of up to 50 years.”

“It is a pleasure to work in this kind of team: experienced, motivated specialists who give good feedback. The rigorous approach to safety is immediately noticeable,” explained Frederic Cousin, Process Implementation Manager (HDPE) at INEOS, the licensor.

“Besides having the largest production facilities in Europe (1.5 mtpa of polyethylene), ZapSibNeftekhim allows us to produce a wide assortment of grades with different physical and chemical properties,” says Andrei Germashev, Head of Polyethylene Production. “For example, we can produce up to 350 ktpa of PE100. Right now, we have already launched 24 grades, but we won’t stop there. Our products have already been homologated and have received positive reviews from more than a thousand customers. In 2020, two grades of this ZapSibNeftekhim-produced polymer were recognised with a prize and an honourable mention in the Russia’s 100 Best Products competition.”

At ZapSibNeftekhim, quality control checks are constantly carried out on products. There is a set type and structure grade of carbon black permitted in PE100. To determine them, granules are frozen, cut into slices of a set thickness and examined under a microscope

against samples approved by the licensor. By carrying out this work, we can check and, where necessary, regulate the proportion of carbon black to prevent substandard homogenisation, which can lead to pipe defects and deformation during operation. A further quality check performed on the produced granules involves making samples of pipes directly in the ZapSibNeftekhim laboratory, which are then subjected to hydraulic strength tests.

ZapSibNeftekhim currently produces various grades of polyethylene in two facilities across four production lines. Thanks to its high throughput and cutting-edge equipment, the modern petrochemical complex can produce more than 60 grades of polyethylene for the manufacture of products used in industry, housing and utility infrastructure, medicine, pharmacy, and household products.

News report by Tobolskoye Vremya TV (https://www.youtube.com/watch?v=Z6QPI_lLC78)

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