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PolymaxTPE: Increasing production of medical TPEs

PolymaxTPE has announced the expansion of the company's **P-series** and **A-series**, medical-grade TPE materials used in products to help meet the increased demand caused by COVID-19.

The Chinese custom compounder with a production facility in Waukegan, IL, USA, has been increasing production of medical-grade TPE's since February, starting with their P-series product line. One of these medical-grades, **P3838**, is moulded into a diaphragm, serving as a critical component for a sputum aspirator. With rapidly spiking demand for medical-grade TPE's, the company has increased its focus on producing TPE's suitable for facemask applications.

PolymaxTPE also announced an expansion of the company's **A-series**, a medical-grade TPE material that adheres to engineered resins and is available in a wide

hardness range. Some specialty production will be moved from their Nantong, China facility to their Waukegan, Ill. location to assist end-customers who are now reshoring production. The company said that this move will result in a quicker response to all domestic PPE production, allowing for faster deployment of this high-in-demand equipment.

Only recently PolymaxTPE furthermore announced a lab line expansion and said that it has invested USD 400,000 to enhance R&D and production capabilities at the Waukegan facility. Delivered this year, the new additions are highlighted by a **Coperion ZSK Mc18** twin-screw compounding extruder, an **Econ** underwater pelletising EUP system, as well as other auxiliary equipment.

www.polymaxtpe.com

"There are multiple design criteria that need to be considered when creating TPE materials for personal protection equipment (PPE) applications, and our wide range of medical-grade P-series, has allowed us to provide solutions to molders for years," said **Tom Castile**, vice president of sales at PolymaxTPE. "The COVID-19 crisis has quickly created an urgency to source TPE products domestically. As a global leader of TPE solutions and the brand owner of Maxelast, PolymaxTPE technologies can meet the demanding needs of many air-purifying respirators (PAPR) and PPE applications, essential in the battle against COVID-19," he said.

Kraton: Launch of Cirkular+ product line

Kraton has launched the **Cirkular+** product line, which is said to enable a holistic approach to the plastic product life cycle and the circular economy. The products include PCR and industrial plastic recycling streams, bioplastics and flexible product design using a combination of virgin and recycled plas-

tic materials. Cirkular+ fully reprocessable additives are a cost-efficient solution that allows for reuse of recycled plastic through upcycling of PCR and industrial waste streams, including typically non-compatible materials and difficult-to-recycle engineering polymers, said the company. PCR polyolefin modification with

Cirkular+ additives can result in enhanced mechanical properties and design recyclability, enabling a mono-material approach to substitute a combination of polyolefins used with other less recyclable resins.

On 23 April 2020, **Kraton** announced that it achieved a Gold recognition medal for its sustainability rating from **EcoVadis**.

www.kraton.com

www.cirkularplus.com

Kraton has launched a new line of sustainable products. (Source: Kraton)



APS: New facility and headquarters

APS Elastomers announced that it has purchased a new facility and that it is moving operations from Romulus, MI, USA, to a larger facility in nearby Westland. The company said that the ex-

pansion allows to double the production volume of various TPEs as well as create a new product testing lab.

www.apstpe.com

Albis: Strengthening product development capabilities in North America

Albis Plastic has further improved their local product development process in North America by adding additional product development resources. As a result the company is now also developing compounds locally for the North American market at their manufacturing site in Duncan, SC. The Duncan site also houses a dedicated small lot production line

for product development purposes. All activities are backed by the extensive know how of the product development department in Germany and a fully-equipped on-site lab with A2LA accreditation according to ISO 17025. Furthermore, Albis has implemented a QM system according to IATF 16949.

www.albis.com

Arlanxco: New Corporate Center in The Hague

Effective 1 May 2020, **Arlanxco** will establish its global Corporate Center in The Hague, effectively transferring its head-

quarters from Maastricht to The Hague, both in The Netherlands. The Corporate Center consists of the CEO, CFO, General Coun-

Covid-19. Instead of components for the automotive and electrical industry, the company is now producing reusable face masks/respirators for welfare and social-service institutions and medical offices. It was the company's close collaboration with Kraiburg TPE in the project, among other things, that made this possible.

After BaS had designed a 3D model, **Rietsch GmbH Werkzeug- und Formenbau** produced the mould required to manufacture the masks. Kraiburg TPE was able to deliver the compounds needed to produce

the masks, so that it took only a few days for the first sample to come off the conveyor belt. A total of 1,500 masks with breathing apparatus filters can now be produced daily.

The special feature of this mask system is its modular design that combines a cleanable half-mask and an exchangeable filter. The mask is easy to clean – in a dishwasher, for example – and can be reused with a new filter afterwards.

“Our TF5CGN material was selected for the BaS mask. The mask is very easy to clean and

has a pleasantly soft surface that allows it to fit snugly onto the face,” says **Matthias Schmidt**, Sales Manager Medical at Kraiburg TPE. “This is one of many different face-mask applications that have recently been implemented using our TPEs. What we like most about this special project is the supportive collaboration there was between all of the companies involved. Thanks to the rapid implementation of the project, local and regional retirement homes, outpatient services, and medical offices are quickly receiving masks so they can work in a protected and safe way during the coronavirus crisis.”

Kraton: Enhancing production efficiency with new HSBC polymer

Kraton has launched **G1646** polymer that is said to enable improved flow for higher manufacturing efficiency. The polymer is a hydrogenated styrenic block copolymer (HSBC) and is part of the company's Enhanced Rubber Segment (ERS) series portfolio, which is softer and shows higher melt flow properties than conventional **Kraton G** polymers. The product has very good compatibility with polypropylene, and is produced as a dense pellet in the company's HSBC manufacturing site in Mailiao, Taiwan.

Kraton said that G1646 can be used in a variety of applications including protective film, food packaging, medical tubing and films, and face masks. The company pointed out that face masks employing the polymer are more stable at body temperature over a long-use period compared to masks

employing polyolefin elastomers, enabling a more secure fit over time. With G1646, the elastic material is softer than polyolefin elastomers, leading to enhanced comfort. Its soft retention forces have shown to leave no red marks on the skin or around the ears, even after 8 h of wear in current product designs. G1646 polymer can also

be used to make ear loops for face masks due to its thermal stability and improved processability, while enabling higher production output.

Kraton pointed out that the polymer enables film and hygiene manufacturer to convert existing diaper production lines to produce medical face masks that are comfortable for healthcare users while addressing the global shortage.

www.kraton.com



Source: Kraton

G1646 can be used to produce ear loops for face masks.



a new perspective on TPEs