Improving the process

Process aids, such as these Montan waxes from Voelpker, can improve dispersion, lubrication, and compatibilisation during processing of polymer compounds.

Process aids can help compounders improve productivity and quality while delivering processing gains for their customers. ***Chris Saunders*** *explores developments.*

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The monthly global magazine for polymer compounders and masterbatch producers. Covering plastics, additives and compounding technology and market trends.

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Compacted waxes

Long-standing producer and supplier of montan waxes and speciality waxblends, **Voelpker** has built a new compacting plant for manufacture of its Cevo special wax additives at its headquarters at Völpke in Germany. Compacted pellets are especially suitable for the manufacturing of dryblends.

"Montan wax additives have proven to be especially useful in demanding polymer applica-tions. The Cevo range is a targeted integration of Voelpker's montan wax know-how in line with specific customer requirements and solves both complex processing challenges and final product quality demands," says Dr Lutz Matthies, Head of Business Development at Voelpker. "The formulations combine synergistically the mechanisms of dispersion, stabilisation, lubrication, compatibilisation and chemical intervention in the structure of the polymer, depending on the respective tasks. The advantages include cost savings through shorter cycle times and, due to improved dispersion, optimised amounts of fillers, pigments, etc," he says. "An even distribution of fillers also has a positive influence on the mechani-cal properties of the polymer and the surface quality, while flame retardants and other functional additives are protected from degradation by reduced friction and their effectiveness optimised through improved distribution."

Cevo-process J-4418 is an organic ester wax based on renewable plant waxes but with a chemical structure corresponding to typical montan esters. It combines the montan-typical characteristics of a multi-purpose plastics additive with the appeal of renewable sourcing. It is comprised of modified natural long-chain fatty acids and is predominantly derived from acids and alcohols in the C26 – C30 range.

Another of Voelpker's trademark products is Cevo-process A-3105. It is said to improve hydroly-sis stability in glass reinforced PA compounds used, for example, in engine cooling systems where hot water/glycol mixtures circulate. In particular, it can help in aligning glass fibres, smoothing surfaces, and reducing porosity.

Voelpker has added a new compacting line at its plant in Germany to produce its Cevo wax additives in a compacted pellet from.

"In flame retardant polyamide formulations (PA GF FR) Cevo-process A-3105 supports the effective distribution of halogen-free flame retardants," Matthies says. "In addition, the friction rate is reduced significantly and decomposition of the flame retardant is effectively suppressed. This stabilises the formulation and enables better optimisation."

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