

Additives to enable plastics circularity

Additives may hold the key to improving recyclability of post-consumer plastics and for improving formulations containing recycled plastics, writes Jennifer Markarian

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Main image:
There are considerable technical challenges involved in effective recycling of post-consumer plastics. Additives are providing the solution to some of them



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Völpker Spezialprodukte bases its plastics additives on montan waxes and develops grades to deliver specific solutions for producers of virgin and recycled plastic compounds. The company's Cevo range of additives has been developed to solve processing and application-related issues in many processing areas, with Cevo-process B-3680 and Cevo-process B-3690 said to be particularly effective dispersion additives for recycling of PCR HDPE/LDPE.

"Post-consumer HDPE/LDPE waste in most cases contains unwanted polymer particles and mineral – or other – contaminations that prove to be disruptive in the production of recyclates and that reduce the quality," the company says. "Their proper dispersion as well as the dispersion of fillers – for example, carbon black – is mandatory in order to produce adequate recycling qualities, for example for injection moulding."

The company says that tests have shown that carbon black can be "excellently dispersed" when Cevo-process B-3680 or Cevo-process B-3690 is added at 0.5% loading in virgin HDPE and at 2.0% in recycled HDPEs. "This was proven by a classical filter pressure test: the results show that the increase in pressure is significantly reduced. This proves the dispersing effect of these additives in the post-consumer compound," says the company.



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