

**EVANESTO® INNOVATIVE ENZYMATED MASTERBATCH
MAKING PLA FULLY COMPOSTABLE IN ALL COMPOSTING CONDITIONS**

Established in 2016 Carbiolice has successfully developed in less than 4 years an enzymatic additive called Evanesto®, that can be used on conventional plastic transforming processes without adaptation. When added to the manufacture of bio-based plastic (PLA), it renders it fully compostable even in domestic conditions in less than 200 days. Carbiolice will share the latest results obtained from PLA-based samples containing Evanesto®, for all composting methods (whether in aerobic and anaerobic digestions, at ambient temperature), making its solution “universal”.

Evanesto® makes PLA fully compostable by accelerating by 30% its natural biodegradation (measured by OWS), making it compostable even under domestic conditions. Indeed, by accelerating the disintegration of PLA so that it is more quickly assimilated by the micro-organisms in the compost (without residue or toxicity), this additive makes biobased plastics compostable, even at home. For the first time, an additive enables plastics with a high PLA content to achieve TÜV AUSTRIA Group's "OK compost HOME" certification (a reference throughout Europe).

Evanesto® allows also the generation of biogas in anaerobic digestion process. Methanization tests were performed with Bio-valo (a French platform of services and innovation for the development of the biomass valorization sector) proving that at least 3 times more biogas will be produced during the methanization process, and a mass loss of about 40% of the sample containing the enzyme additive. In addition, it was demonstrated that an enzymatic activity persisted at the end of the process, allowing to finalize its biodegradation in industrial conditions.



CARBIOLICE