



For immediate release

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PRESS RELEASE

Recycled film quality negatively affected by degradable plastics from Southern Europe

Even very low quantities of degradable plastics that end up in the traditional plastic waste streams have a significant, negative impact on recycled plastics.

Waste streams in the South of Europe pose a quality issue in films with recycled content production due to a higher share of degradable plastics. A trial done on 1.000 tonnes of equally purchased qualities of waste from Northern Europe and Southern Europe suppliers showed substantial quality discrepancies in the recycled film.

The tests were performed on industrial lines to first produce recycled plastics (from waste with 98/2 post-consumer quality¹) and then to convert into a film of 50-micron thickness. The extrusion worked normally with recycled plastics coming from Northern Europe. However, holes and specks occurred regularly in the film produced with recycled waste coming from Southern Europe.

Besides the qualitative analysis of the holes and specs, abrasions of the supply lines turned out to be a useful indicator since they are batch-independent and thus could be used as a statistical average. To understand the defects and ruptures of the film, samples were analysed by IR, thermal analysis as well as via gas chromatography mass spectrometry. These analyses demonstrated that most of the degradation is coming from substances used in production of degradable plastics e.g.: starch, polylactide (PLA) and/or polybutylene adipate terephthalate (PBAT).

These tests show that there is a big impact on the functionality of recycled plastics coming from Southern Europe waste films flows. Therefore, it is necessary to develop separate streams not only for bio-waste but also degradable plastics in order to make sure that degradable plastics do not enter waste streams of conventional plastics.

Although production of thick-walled recycled products (> 50 micron) from this highly contaminated material is possible it will impact heavily their appearance.

The push towards increasing the use of degradable plastics is expected to make this problem more acute in the future. Therefore, PRE calls the authorities to assess the overall impact of degradable plastics on the conventional streams and to develop separate collection for both bio-waste and degradable plastics in order to avoid putting in jeopardy the efforts of making plastics more circular.

¹ 98/2 quality refers to PE film containing 98% natural and 2% of coloured material

LINK: <http://www.plasticsrecyclers.eu/news/recycled-film-quality-negatively-affected-degradable-plastics-southern-europe>

About Plastics Recyclers Europe

Plastics Recyclers Europe is the professional representative body of plastics recyclers in Europe. PRE promotes plastics mechanical recycling and conditions that enable profitable and sustainable business, while offering a service platform to its members. Our members constitute 80% of the European recycling capacity, processing more than 3 million tonnes of collected plastics per year.

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