

## Dissolution Recycling as a solution for a multilayered problem

Conventional separation technologies for mixed polymer waste have reached their technical limits. More than 2/3 of the postconsumer household plastics waste containing mixed flexible packaging films remain unsorted and are incinerated or landfilled.

Dissolution Recycling, especially the CreaSolv® Process – a registered trademark of CreaCycle GmbH) process precisely separates different polyolefins from a mixture of plastics waste.

A selectively acting solvent physically dissolves individual polyolefin grades from mixed post-consumer flexible packaging waste. Insoluble residuals such as labels or inorganics, other polyolefins and polymers, pigments, debris, organic residues can be effectively removed from the solution.

In consecutive process steps the polymer solution is purified, stabilized and converted into PCR pellets. The solvent, non-hazardous and safe in industrial application, is reused in a closed loop. From the remaining insoluble residues further polyolefin grades can be extracted with the same process by adjusting the parameters or modifying the solvent.

The Dissolution Recycling process focuses on plastics waste streams, not only flexibles and multilayers, that cannot be recycled with existing technologies today and turning waste streams into high quality products for direct re-use.