OREVAC® LOTADER® LOTRYL®

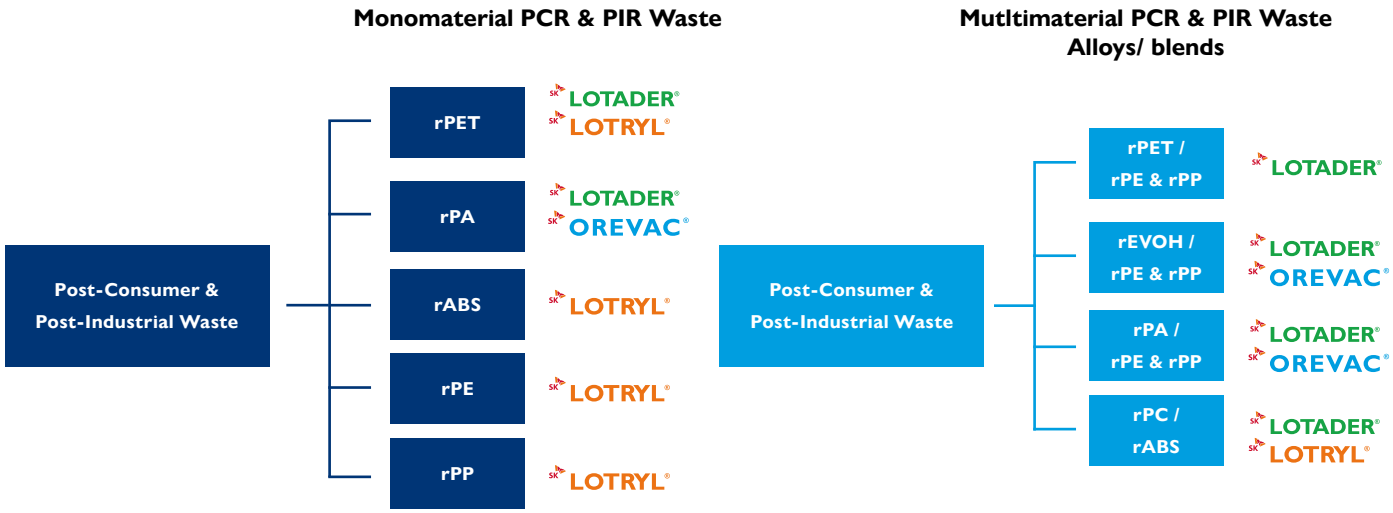
SK functional polymer

Sustainable Solutions for Plastics Recycling

Recycling of post-consumer (PCR) and post-industrial (PIR) waste is a major challenge for the plastic industry. The presence of a wide variety of incompatible polymers in waste streams leads inevitably to phase separation and poor mechanical properties. Improvements in the procedures in separating waste streams may lead to more effective recycling but those procedures are time consuming and rarely fully effective. Pressure from legislation as well as consumer more and more drive the industry to increase recycling rate and green initiatives.

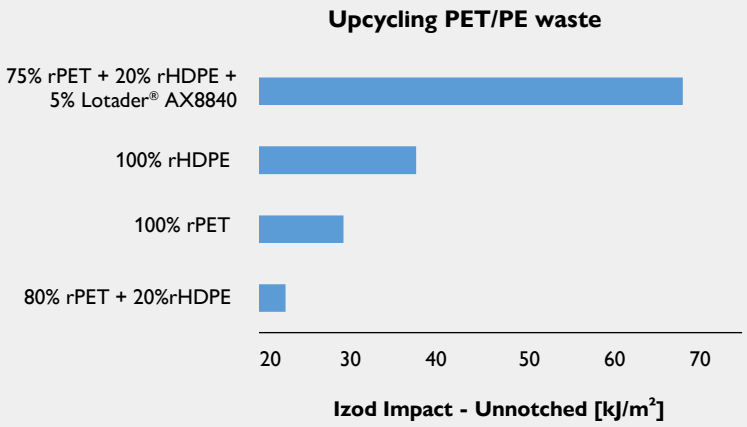
SK Functional Polymer offers a full range of recycling boosters that allows mixed waste streams, targeting higher added-value applications. **Lotryl®** copolymers, **Lotader®** reactive terpolymers and **Orevac®** grafted polyolefins are widely used as **compatibiliser** for multilayer structures based on polyolefins (LDPE, PP and HDPE) and engineering plastics (EVOH, PA and PET). Mechanical properties, and in particularly impact strength and elongation at break, are significantly improved opening up recycling opportunities in various extrusion and injection moulding applications.

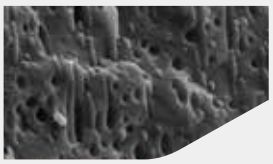
Boosting performance of Post-Consumer & Post-Industrial Waste



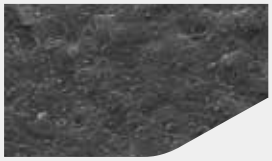
Case Study #1: Upcycling PET/PE Waste

Despite advances in separation technology, contamination of PET streams with PE is very common. By allowing incompatible PET and PE plastics to mix in the melt, SKFP recycling booster reduce the need for separation and gives manufacturers the possibility of cost reduction due to increased recycled content and access to low-cost sources. **New products such as pipes, films, plastic pallets and monofilaments made of recycled PET/PE alloys with Lotader® AX8840 terpolymer as compatibiliser have been successfully commercialised.**





Without Lotader® AX8840
Heterogeneous matrix

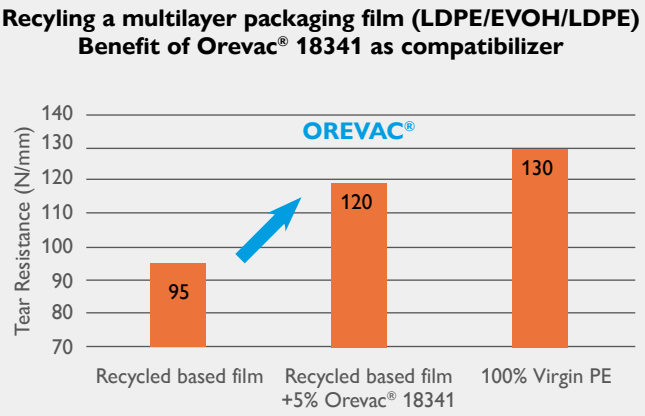


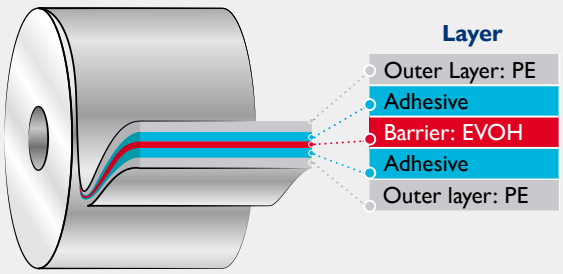
With 5 wt.-% Lotader® AX8840
Homogeneous matrix

Case Study #2: Upcycling multilayer Films

Multilayer structures based on polyolefins like LDPE, PP, HDPE and engineering plastics like EVOH, PA are widely used in flexible food packaging, agriculture films and automotive tanks. However, because of their poor recyclability, most multilayer structures are usually incinerated or landfilled. With more and more strict regulations to increase the recovery of products, it is becoming urgent to develop recycling solutions for multilayers structures.

With SKFP recycling booster, multilayers structures have been successfully recycled and used in moulding, film and extrusion. Orevac® 18341 or Lotader® 4210 allow an easier processing of such recycled structures, leading to less gels and higher mechanical and applicative performance.





A French *société par actions simplifiée*, having its registered office at 16, Place de l'Iris - 92400 Courbevoie, FRANCE, registered with the Trade and Companies Registry *(Registre du Commerce et des Sociétés)* of Nanterre under the number 879 957 934 – Credit photos : Adobe Stock, SKFP – Agency : Rythmic – 2021-08

SK Functional Polymer (SKFP) is a newly established company headquartered in Paris, France, following the acquisition of Arkema's Functional Polyolefins business by SK Global Chemical in June 2020. SK Functional Polymer has more than 50 years of experience in the development and supply of specialty polyolefins products from manufacturing facilities in Europe (Balan, Carling and Mont). SKFP products are sold under the brand names of Lotader®, Lotryl®, Orevac® and Evatane®. They are used in applications such as Packaging, Automotive, Construction and also in the Circular Economy. SKFP produces its resins in three main plants located in Europe. SKGC, mother company of SKFP, proposes a wide range of plastic materials for the Packaging and Automotive industries.

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