



Crocco and ExxonMobil collaborate to help support a more circular economy for plastics

The Italian flexible packaging leader advances the circular economy with certified-circular plastics* leveraging Exxtend™ technology.

Innovating for today and tomorrow

Crocco, a top player in flexible packaging, is known for its quality, innovation, and strong commitment to sustainability. As a family-owned business with more than 50 years of experience, Crocco produces plastic films that wrap, secure, and protect many types of industrial and everyday products, like food, household items, medicines, and more.

The challenge

Plastics are in products we use every day to keep us safe — from bicycle helmets and child safety seats to automotive airbags and cell phones. Plastics also help keep the foods we eat and serve to our families safer and fresher than ever before. While plastics benefit society in many ways, there's growing demand for companies to use packaging with sustainability benefits — which is even more challenging in certain applications, like food packaging, that have strict safety and quality standards. Traditional mechanical recycling chops plastics into smaller pieces and melts them down to form a limited range of new products. The plastic can degrade over time and can't always be used for contact-sensitive applications.

Crocco's main objective is to bring safe, high-quality, and high-performing direct-food-contact packaging solutions into the market. Additionally, meeting high organoleptic standards, including controlling odors, is crucial for pet food packaging applications. On top of this, Crocco wanted to support an alternative end-of-life disposition of plastics.

The solution

To tackle these challenges, Crocco teamed up with ExxonMobil to purchase certified-circular plastics leveraging its Exxtend™ technology for advanced recycling. Certified-circular plastics are virgin-quality plastics that are accompanied by a certificate that matches the mass of certified-circular plastics that Crocco buys to a corresponding amount of plastic waste that ExxonMobil transformed back into usable raw materials through advanced recycling. Advanced recycling is complementary to mechanical recycling. For hard-to-recycle plastics that can't easily be mechanically recycled, it enables more of the plastics we rely upon every day to be recycled, instead of going to landfill or incineration.

* Certified-circular plastics are virgin quality plastics that are accompanied by an ISCC PLUS "Sustainability Declaration" that matches the mass of certified-circular plastics that we sell to a corresponding amount of plastic waste that we transformed back into usable raw materials through advanced recycling

Crocco uses these certified-circular plastics to create its plastic films and food pouches. This allows the company to meet the stringent safety requirements for contact-sensitive applications, like food packaging, while also giving its customers confidence that they're supporting sustainable solutions. By incorporating certified-circular plastics, Crocco is playing a role in diverting plastic waste that might otherwise have gone to landfills and incineration, and is supporting the use of plastic waste as an alternative to fossil-based feedstocks.



The importance of mass balance

Exxtend™ technology for advanced recycling that allows ExxonMobil to provide certified-circular plastics is supported by a mass balance attribution approach, connecting the dots between the plastic waste that has been processed and the certified-circular plastics that have been sold. Advanced recycling technology converts plastic waste at a molecular level to produce virgin-quality raw materials for making many valuable products. Because plastic-waste-derived raw materials are mixed with fossil-derived raw materials in the same system, there is no way to identify which molecules in those raw materials are derived from plastic and which are derived from crude-based feedstock.

Accordingly, ExxonMobil uses a reliable, transparent, third-party approach called “mass balance” to attribute raw material inputs to product output. Under this independently certified, auditable

methodology, the mass of plastic waste it processes through its advanced recycling process, less manufacturing losses, is attributed to the mass of certified-circular plastic it sells. The amount of usable raw materials made from plastic waste is then attributed to new certified-circular plastics, leveraging the ISCC PLUS mass balance approach using the “determined by mass” option with “certified free attribution” applied. These certified-circular plastics are identical to its existing products, which means they have the same quality and performance and can be safely used in food and medical applications that have strict quality regulations.

The result

With the help of ExxonMobil’s Exxtend™ technology, Crocco is successfully producing packaging solutions that meet the necessary safety and performance standards while helping the company and its customers achieve their environmental goals, including promoting a more circular economy.

This collaboration not only marks a significant step forward in Crocco’s ongoing efforts to innovate and lead in packaging with sustainability benefits, but it also sets an example for leveraging plastic waste as feedstock.

“As a leading producer of plastic films, we are thrilled to integrate certified-circular plastics into our production process. This innovative approach ensures that we maintain the high quality and performance standards our customers expect. Embracing certified-circular plastics is a significant step towards a more sustainable future for our industry,” says Stefano Zelcher, chief procurement officer at Crocco.

“As a pioneer in advanced recycling, we are proud to supply Crocco with high-quality certified-circular plastics that meet the stringent demands of today’s market. Our innovative process transforms plastic waste into valuable resources, giving plastic waste another life as valuable new products. By choosing our certified-circular plastics, you are helping to contribute to a more circular economy for plastics. Together, we can help address plastic waste,” says Alfredo Nasta, PE market development manager, ExxonMobil.

Exxtend™
Recreated to create



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