

Frequently Asked Questions

Q: What is Advanced (chemical) recycling?

This type of recycling uses a chemical process to decompose polymers back to the molecular level, resulting in materials that can replace fossil-based materials in the cracking process to produce monomers, which can then be used in polymer production. Unlike mechanical recycling, which relies on strict sorting of individual plastics, this technology can recycle multilayer and hybrid plastic materials. Properties of the polymers produced in this way are equivalent to virgin polymers and allow for use in a wide variety of applications including medical and food packaging.

Q: What is *MoReTec*?

MoReTec is the LyondellBasell brand name for its proprietary advanced (chemical) recycling technology. This technology uses a proprietary catalyst-based approach in the pyrolysis process to convert mixed plastic waste into feedstock for the production of new plastics for applications including food contact and healthcare.

Q: What is a catalyst and why is it important?

Generally, a catalyst is a substance that initiates and accelerates a chemical reaction by lowering the activation energy. LyondellBasell is one of the world's leading polyolefin catalyst producers and a leader in polyolefin technologies. The use of LyondellBasell proprietary catalysts in the *MoReTec* process enables the conversion of mixed plastic waste into cracker feedstock at lower temperatures and at higher yields.

Q: What type of plastic waste can be targeted with advanced (chemical) recycling?

Advanced (chemical) recycling can be used to convert multilayer, flexible packaging, and other plastics that cannot be mechanically recycled and end up in landfills, incineration or the environment.