Did you know?

In Europe...

83% of the plastic put on the market is NOT recycled.


Plastics are essential everyday materials in packaging, construction, medical, automotive, electronic industries...

Eastman announced its plan to invest $1 billion in a material-to-material molecular recycling facility in France.

If it would use Eastman’s polyester renewal technology (PRT) to recycle over 200,000 tonnes annually of hard-to-recycle polyester plastic waste that is currently being incinerated.

The first phase is scheduled to be completed in 2026.

Molecular – Advanced – Enhanced recycling: They are terms referring to chemical recycling technologies.

What is PRT?

If feedstock is 95% polyester rich

PRT has among the highest % of material recovery rates amongst chemical recycling technologies.

PRT does not turn plastic waste into fuels.

High quality final products

Durable food containers, small appliances, water bottles

Polyester Renewal Technology fully supports six key principles

1. REDUCE, REUSE, RECYCLE
Reduces the need for virgin plastics and fossil feedstocks; recycles unrecyclable polyester waste infinitely without degradation.

2. MATERIAL CIRCULARITY
Enables plastic-to-plastic recovery at a very high yield. The recycled output is indistinguishable from material produced from virgin feedstocks.

3. ENVIRONMENTAL AND SOCIAL IMPACT
Emits less than fossil route; supports safe conditions for our employees and site communities.

4. COMPLEMENTARY TO MECHANICAL RECYCLING
Complements other recycling solutions in the recovery of hard-to-recycle polyester plastic waste.

5. ECONOMIC VIABILITY
PRT is proven technology and can be economically viable at scale thus contributes to solving the EU’s plastic waste crisis.

6. TRANSPARENCY
Eastman leverages multi-stakeholder certifications that are third-party audited; this is key to ensuring transparent and credible claims.
The path to zero waste - the value of chemical recycling

PRT compared to other material-to-material recycling technologies

LOWER Energy intensity HIGHER
Finished product quality is technology-dependent Finished product quality is feedstock-dependent

Chemical recycling complements mechanical recycling to tackle hard-to-recycle waste

What’s needed in Europe?

PRT and other innovative recycling technologies need to be supported by EU rules because they are essential to achieve true circularity of materials, reduce EU's dependency on natural resources and move towards zero waste.

Effective collection and sorting of plastics waste, so waste is secured to a location where it can be treated in the most sustainable manner and where value can be extracted.

All plastic waste should be recycled, and not just post-consumer waste, to ensure no valuable resource is lost, and should contribute towards recycled content targets.

The acceptance of mass balance to calculate and trace recycled content through the value chain and for enabling recycling at scale.

Importance of mass balance for tracking recycled content in products

Mass balance chain of custody method

HOW IT WORKS
It is a well known chain of custody method which allows continued use of the existing infrastructure to bring advanced recycling to scale. Without mass balance, duplication of infrastructure is required (plants, storage, logistics, etc.), which dramatically increases environmental footprints, timelines, making it cost-prohibitive to get to a large scale.

To ensure transparency and credibility it should be verified by third-party certification.

Method used to record how much recycled feedstock is used in plastics manufacture.

Mass balance method is standardized, verified and regularly audited under established certification systems such as ISCC PLUS and others.

Check out our position paper

ABOUT EASTMAN
Founded in 1920, Eastman is a global specialty materials company that produces a broad range of products found in items people use every day. With the purpose of enhancing the quality of life in a material way, Eastman works with customers to deliver innovative products and solutions while maintaining a commitment to safety and sustainability. The company’s innovation-driven growth model takes advantage of world-class technology platforms, deep customer engagement, and differentiated application development to grow its leading positions in attractive end markets such as transportation, building and construction, and consumables. As a globally inclusive and diverse company, Eastman employs approximately 14,000 people around the world and serves customers in more than 100 countries. The company had 2021 revenues of approximately $10.5 billion and is headquartered in Kingsport, Tennessee, USA. In Europe, Middle East and Africa (EMEA), Eastman employs approximately 2100 and is present in 10 countries. EMEA accounted for 26 percent of total sales revenue in 2021.