Moving the needle on plastic waste is no small feat, but petrochemical manufacturers are revolutionizing what's possible. Advanced recycling utilizes advanced processes that break plastic waste all the way down to its original chemical components - expanding the types of plastics that can be recycled, and creating a higher-quality feedstock. Check out our infographic below to learn the difference between mechanical recycling and advanced recycling.

## mechanical recycling



## advanced recycling

melts & re-molds discarded plastic to form new products

opportunities easier to process

limited types of used plastic can be recycled. degradation of polymers

uses heat and/or chemistry to break down polymers to its building blocks or feedstocks for new plastic

OPPORTUNITIES
wider variety of plastics can be
recovered and recycled into
high-performance applications

considerations
more complex process and requires high energy





gets seriously deep-cleaned



shredded into a million pieces











gets seriously deep-cleaned



gets heated up (like really really hot) with no oxygen through a process called pyrolysis, which is one of many advanced recycling processes



and breaks apart at the weakest point (the monomer), which become the building blocks for plastic, like







The plastic waste crisis **requires multiple solutions.** 

Mechanical and advanced recycling **work together as a complimentary approach** to tackling plastic waste in a meaningful and effective way.



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