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

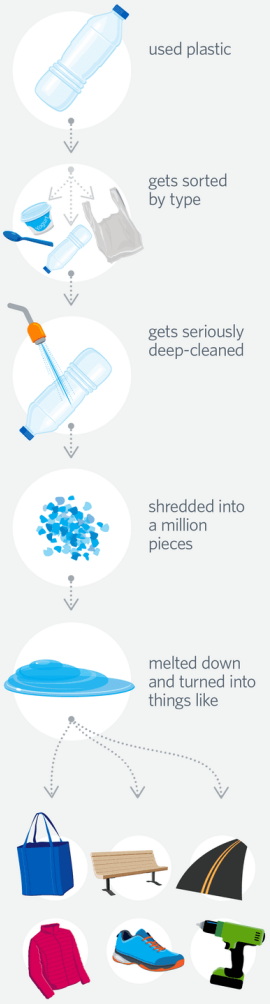
melts & re-molds discarded plastic to form new products

OPPORTUNITIES

easier to process

CONSIDERATIONS

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



used plastic

gets sorted by type

gets seriously deep-cleaned

shredded into a million pieces

melted down and turned into things like

VS.

advanced recycling

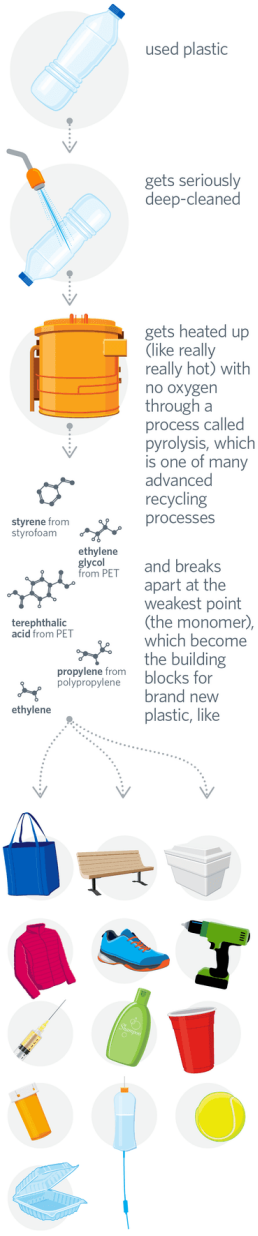
uses heat and/or chemistry to break down polymers to its building blocks or feedstocks for new plastic

OPPORTUNITIES

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

CONSIDERATIONS

more complex process and requires high energy



used plastic

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

styrene from styrofoam

ethylene glycol from PET

terephthalic acid from PET

propylene from polypropylene

ethylene

and breaks apart at the weakest point (the monomer), which become the building blocks for brand new 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.

AFPM

if(window.strchfSettings === undefined) window.strchfSettings = {};window.strchfSettings.stats = {url: "https://afpm.storychief.io/en/mechanical-vs-advanced-recycling-whats-the-difference?id=650991778&type=3",title: "Mechanical vs. advanced recycling — what’s the difference?",id: "bbe3c31b-b2fb-45e9-9758-9d71c459ffb0"};(function(d, s, id) {var js, sjs = d.getElementsByTagName(s)[0];if (d.getElementById(id)) {window.strchf.update(); return;}js = d.createElement(s); js.id = id;js.src = "https://d37oebn0w9ir6a.cloudfront.net/scripts/v0/strchf.js";js.async = true;sjs.parentNode.insertBefore(js, sjs);}(document, 'script', 'storychief-jssdk'))

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