

COMPARING SUSTAINABLE PACKAGING OPTIONS

Sustainability is top of mind for today's consumers, and savvy brands will leverage primary packaging to tell their story. Every brand will have unique goals. At TricorBraun, we help our customers navigate this journey by evaluating various materials and methods in order to provide the most sustainable packaging solution for their product.

DISCLAIMER: This is meant to be a general guide. Pricing scale is extremely relative to the size of the package, tooling, and any material adders for compatibility. Contact us for the most up-to-date information.

| | MATERIAL SOLUTIONS | CONSIDERATIONS |
|--------------------------------|--|---|
| ↑ LEAST EXPENSIVE | NON-PLASTIC | |
| | PAPER | <ul style="list-style-type: none"> Breaks down faster and is compostable in some forms Can be 100% recyclable if no coatings or films are required for the formula |
| | PCR (POST-CONSUMER RESIN) | |
| | PET | <ul style="list-style-type: none"> Easily recyclable Natural color has gray tint Odor can be present |
| | PE | <ul style="list-style-type: none"> Maintains barrier properties of virgin PE Limited supply available in natural color Odor can be present |
| | PP | <ul style="list-style-type: none"> Limited supply Works best with dark colorant Odor can be present |
| | NON-PLASTIC | |
| | GLASS | <ul style="list-style-type: none"> 100% recyclable and reusable Fragile and heavier to ship |
| | ALUMINUM | <ul style="list-style-type: none"> 100% recyclable, durable and ideal for reuse Requires higher MOQs Limited supply |
| | CHEMICALLY RECYCLED RESINS | |
| | | <ul style="list-style-type: none"> 100% recycled content Comparable in quality and color to virgin resin |
| | ALTERNATIVE RESINS | |
| | OCEAN BOUND | <ul style="list-style-type: none"> Reduces plastic waste bound for the ocean Limited supply available Cost is typically 2X virgin resin |
| | BIO-RESINS | <ul style="list-style-type: none"> Reduces use of petroleum-based resins Can be added in increments as low as 5% >5% bio-resin coded as #7 (non-recyclable), exceptions exist for PE and PET Requires extensive stability and compatibility testing Cost is typically 3X virgin resin |
| BIODEGRADABLE ADDITIVES | | |
| FLEXIBLES | <ul style="list-style-type: none"> Can improve biodegradability or compostability Low durability and barrier properties >5% bio-resin coded as #7 (non-recyclable), exceptions exist for PE and PET Supply and scalability can be a limiting factor | |
| HDPE | | |
| LDPE | | |
| PP | | |
| ↓ MOST EXPENSIVE | | |

| OTHER SOLUTIONS | CONSIDERATIONS |
|----------------------------------|--|
| MONO-MATERIAL | <ul style="list-style-type: none"> Made with 1 resin, or a combination of resins from the same family Optimal for single-stream recycling Limited supply available for multi-component products |
| ALL PLASTIC | <ul style="list-style-type: none"> All components made of plastic, but resins types can differ No metal May be easier to recycle than mixed-material products (validate with testing) Pricing can be higher than mixed-materials products Major retailers are trending towards all-plastic requirements |
| LIGHTWEIGHTED | <ul style="list-style-type: none"> Reduces unnecessary plastic More efficient to ship Testing required to assure package integrity |
| REFILLABLE & REUSABLE | <ul style="list-style-type: none"> Reduces single-use packaging materials Should be easy to clean |
| DESIGN OPTIMIZATION | <ul style="list-style-type: none"> Improves pack out Reduces shipping emissions Increases filling line efficiency |
| OPERATIONAL IMPROVEMENTS | <ul style="list-style-type: none"> Optimize logistics to reduce carbon footprint Reduce downtime and/or waste of unnecessary resources |

Let's talk packaging!

Email us at marketing@tricorbraun.com to get started on your sustainable solution today.

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