

# Eco-Friendly Packaging



As the demand for **sustainable packaging** rises, so do the number of alternative resin options. Our Materials & Metrology team and Engineers are continuously investigating and testing new resin alternatives. From Post Consumer Recycled (PCR) to Bio Resin, Silgan Plastics has the right **solution** to fit both your needs and budget.

## Post-Consumer Recycled (PCR)

Post-Consumer Recycled (PCR) is the most widely used option. Products manufactured from PCR require fewer natural resources compared to virgin resin and are still recyclable, making them an environmentally friendly option. Silgan Plastics sources HDPE PCR and PET PCR from multiple qualified suppliers and can offer both food grade and non-food grade options, depending on your need. We produce bottles with up to 100% PCR in a mono-layer application and can create virtually any HDPE PCR concentration through our mono, bi- and tri-layer options. The tri-layer option allows us to sandwich PCR in the middle layer. This avoids product contact and enables a pristine outer layer and optimum shelf appeal, as well as saving money on expensive colorants.

100% PET PCR produces bottles that exhibit a bit more color than virgin PET but perform virtually the same. While we can produce an HDPE package with up to 100% PCR, anything greater than 50% deteriorates ESCR (Environmental Stress Crack Resistance) performance.

Silgan Plastics routinely stocks HDPE PCR at our extrusion facilities that utilize it and has a lead time of approximately 3 weeks.

We process over 1 million pounds per year of PET PCR at our Seymour facility and stock based on ongoing customer requirements.





## Bio-Resin

Another growing sustainable resin alternative is plant-based bio resin. Traditional PET & PE resins are petrochemical based, whereas the bio-based alternative is produced with 30% of the material derived from sugarcane for PET and 98% for HDPE. The traditional petrochemical based resins and sugarcane alternatives have fully identical properties, processes the same and can be incorporated into the existing production lines.

Silgan Plastics sources both PET & PE bio resin from multiple suppliers. While we do not currently stock bio resin, as there is no market demand to do so, we have readily available with lead times of 3-4 weeks.

## Bio-degradable Resin

Bio-degradeable plastic is a great option for many consumer items, however we do not recommend for bottles or other rigid packaging at this point. Unlike bio resins that are sugarcane based, bio-degradeable resins do not have the same structural properties as virgin resin, have a tendency to create holes and are therefore an inferior product.



	Generic Virgin PET	Generic Virgin PE	PET PCR	PE PCR (Natural, Non-Food Grade)	PE PCR (Mixed Color)	Bio-PET	Bio-PE	Ocean-Bound
Cost	\$	\$	\$\$	\$\$\$\$	\$\$	\$\$\$	\$\$\$	\$\$\$\$

\*\*\* The above table is for basic guidance only. The resin markets are rapidly evolving and final pricing and timing can only be ensured at time of official quote \*\*\*

The use of PCR or bio resin offer a great way to provide a more sustainable package, though they do come at a premium. Ranging anywhere from 10 to 100% higher cost, with bio-based PE being the costliest, these are commodities with constantly changing costs. Please discuss with your Silgan Plastics account manager to get the most up to date pricing on these environmentally friendly options.

**1.800.2SILGAN (274.5426)**

For more information on these or other stock & mold available bottles and jars, please contact your Silgan Plastics account manager or visit [SilganPlastics.com](https://www.SilganPlastics.com)