

rPEPEAT_{PET}
by PENN COLOR



RECYCLED PET
PROCESS ENHANCER

APPLICATIONS

Designed for single and 2-stage Injection Stretch Blow Molding (ISBM), **rPEPEAT_{PET}** enhances the processing efficiency of virgin and recycled PET (rPET) at inclusion rates up to 100%.

ADVANTAGES

Processing

The use of rPET can present processing challenges due to its lower intrinsic viscosity, a result of PET degradation from multiple heat histories. This can lead to issues such as stickiness during mold release, under-blown bottles, neck defects, and inefficiencies in production. **rPEPEAT_{PET}** enhances the flow properties of rPET, significantly improving both the injection, stretching and blowing characteristics of the preform and final bottle.

Energy Reduction

rPEPEAT_{PET} enables barrel temperature reductions of approximately 25°C during injection molding and 15°C during the blowing phase of rPET. Temperature reductions have also been validated when molding in virgin PET. Through lower heats and faster cooling times, energy reductions translate into real, measurable savings in manufacturing costs.

Improved Preform & Bottle Quality

By enhancing the processing of rPET resin, **rPEPEAT_{PET}** helps create a stronger, more consistent preform and bottle with improved consistency and performance. Through higher quality yield, scrap rates are reduced while overall product quality increases—leading to product protection, better shelf presence, and consumer satisfaction.

Acetaldehyde Reduction

Incorporating **rPEPEAT_{PET}** during the processing of rPET significantly reduces acetaldehyde (AA) levels by minimizing polymer degradation. This proven reduction in AA not only supports safer, higher-quality products but also delivers a noticeably improved taste and odor experience for consumers.

Increased Sustainability

With the integration of **rPEPEAT_{PET}**, manufacturers can achieve significantly higher rPET content in their packaging—up to 100%—without sacrificing processing efficiency and mechanical performance. By enabling greater use of post-consumer recycled material while maintaining high production standards **rPEPEAT_{PET}** helps brands meet ambitious sustainability goals, reduce environmental impact, and strengthen their commitment to a circular economy.



PRODUCTS

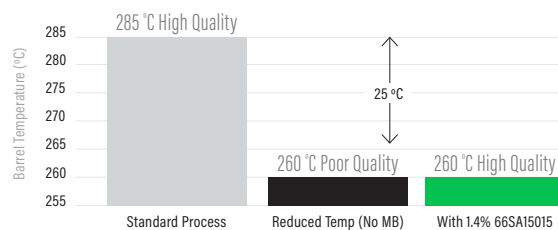
We offer **rPEPEAT^{PET}** around the globe in an easy to dose pellet solution. Designed for optimal performance in single and 2-stage PET Injection Stretch Blow across Food and Beverage, Personal & Home Care, and Industrial applications. Consultation with Penn Color regarding your unique application and specific requirements ensures that the recommended product and dosage levels align with your desired outcomes.

Code	Form	LDR	Performance Stage
66SA15015	MASTERBATCH	1.5-3%	PREFORM/BOTTLE

TECHNICAL DATA

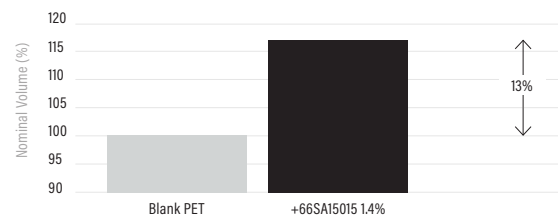
Reduced Barrel Temperatures

When tested under controlled processing conditions, parts made with 100% rPET required higher processing temperatures (285°C) to meet final article quality standards. With the inclusion of **rPEPEAT^{PET}**, quality parts were produced at 260°C, a 25°C reduction in overall processing temperatures.



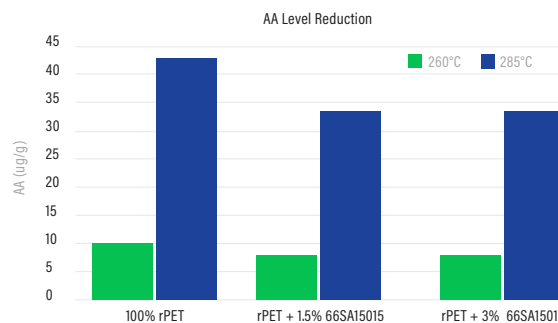
Increased Bottle Volume

Bottles made with 100% rPET + **rPEPEAT^{PET}** saw an overall bottle volume increase of 13% vs. bottles made from 100% rPET. Increased volume provides the opportunity for light weighting by better stretching and utilization of the polymer and an overall optimized blow molding process.



Decreased Acetaldehyde (AA) levels

The incorporation of **rPEPEAT^{PET}** enables processing of rPET at reduced melt temperatures. Lower processing temperatures directly correlate with a significant reduction in acetaldehyde (AA) formation. Experimental data demonstrates that by decreasing the processing temperature from 285°C to 260°C, that AA levels can be reduced by up to 80%, enhancing both end-product safety and experience.



IMPORTANT INFORMATION

ISO 9001 Certified

LDR recommendation is intended for guidance only and may need to be adjusted based on performance, processing method and regulatory requirements. Detailed compliance documentation can be provided by Penn Color's Product Stewardship Department upon request. However, be advised it is the responsibility of the user to assess its product uses and applications and assure compliance to all applicable laws and regulations, including FDA 21 CFR and EU food contact status. Regional coding suffixes may apply.

