

» Additives & Colorants for PET

This interactive list provides you with examples of polymer additives and colorants that are suitable for PET resins, and can address the challenges you face in achieving overall sustainability of your products. Contact us for even more ideas on how we can help you reach your current and future sustainability goals.



TONERS & COLORS

Challenge: rPET can be off-color, negatively impacting consumer perception of a product. Toners and colorants can create brighter, haze-free PET containers.

ColorMatrix™ Optica™ Toners - Masks yellowing of rPET preforms and improves aesthetics. Reduces yellowing through recycling and provides bottle blowing benefits as well as reduced carbon emissions. Contains APR accredited SmartHeat™ RHC process aid. Standard ColorMatrix toners to mask yellowing of rPET preforms are also available.

HIFORMER™ Enhancer - Designed to enhance the color properties of polyesters by reducing visible yellowness and improving appearance.

REHEAT ADDITIVES FOR PET MANUFACTURING

Challenge: Virgin PET yellows when recycled. Converters are seeking opportunities to maximize the efficiency of the bottle blowing process while reducing carbon emissions.

ColorMatrix™ Joule™ Reheat Additive - Added at the reactor stage to offer an inherent toning capability in addition to infrared (IR) absorption capacity; helps maintain clarity.

PET PROCESS AIDS

Challenge: Increasing rPET often creates processing challenges. Using advanced IR absorption technology, recycle-friendly process aids cut energy usage, improve quality, and enhance aesthetics.

ColorMatrix™ SmartHeat™ RHC Process Aid - APR accredited process aid for rPET manufacturers and converters that improves the recycling and sustainability of PET bottles; enhances bottle blowing process, provides better thermal stability, increases mechanical strength of bottle, and reduces yellowing.

IV BUILDERS FOR SHEET EXTRUSION

Challenge: Melt viscosity is negatively impacted by multiple heat cycles. IV builders can help to reverse the impact.

ColorMatrix™ rePrize™ IV Builder - Chain extender that offers a cost-effective way to rebuild intrinsic viscosity (IV) allowing for reduced SSP time, increased productivity, higher target IV for new applications, and increased use of rPET.

CESA™ Extend - Chain extenders that provide a low to moderate increase in IV and can also offer cross-linking benefits.

SLIP AGENTS

Challenge: Incorporating rPET increases cycle times. Slip helps increase throughput by enabling the bottle to release more efficiently.

ColorMatrix™ Eze™ Slip Agent - Process aid that reduces surface friction to offer efficiencies during injection and blow molding processes.

ACETALDEHYDE SCAVENGERS

Challenge: PET bottles produce acetaldehyde, adding an off-taste and odor that diminishes the consumer experience. Additives can reduce and control acetaldehyde levels to help preserve brand equity.

ColorMatrix™ AAzure™ Process Aid - Helps reduce and control acetaldehyde levels that can cause off-tastes in PET packaged water; provides bottle blowing benefits, as well as reduces carbon emissions. Contains SmartHeat RHC, an APR accredited process aid.

ColorMatrix™ Triple A™ Acetaldehyde Scavenger - Helps reduce and control acetaldehyde levels that can cause off-tastes in PET bottles.

OXYGEN SCAVENGERS

Challenge: Oxygen can permeate PET bottles, reducing a product's shelf life. Reduce the risk of content degradation by incorporating oxygen barrier solutions.

ColorMatrix™ Amosorb™ - Creates an active barrier against oxygen ingress to extend product protection and shelf life.

ULTRAVIOLET (UV) LIGHT BARRIER ADDITIVES

Challenge: UV rays can degrade package contents, resulting in shorter shelf life. UV light barrier additives can effectively block UV light transmission.

ColorMatrix™ Ultimate™ UV Light Barrier - Effectively blocks UV light transmission, protecting product and brand integrity during storage, transportation, and in the retail environment. Recognized by APR for having no negative impact on the recycling stream.

COLORS & EFFECTS

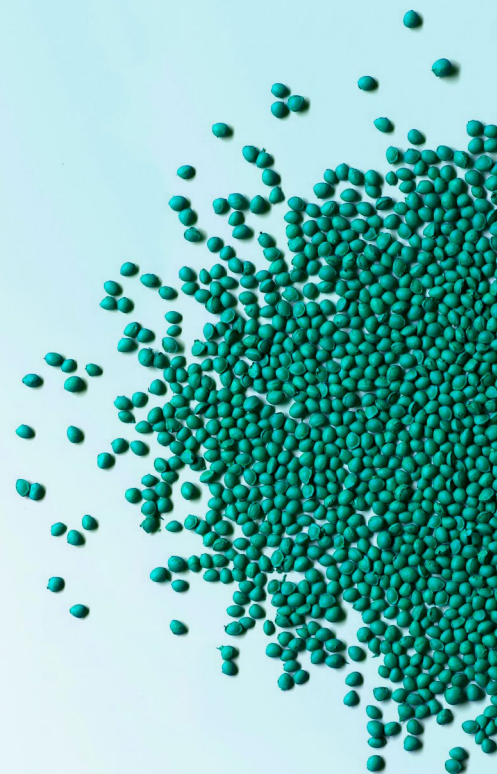
Challenge: Secondary finishes such as electroplating, spray coatings and paints negate a package's ability to be recycled. Eliminate the need for secondary processing and sleeves with molded-in special effects. Likewise, black polymers are difficult to recycle using automatic sorting equipment, but special colorants can permit black packaging to be detected and recycled.

Impress™ High Gloss Metallic Effect - High gloss, metallic effect colorants that impart a brilliant sheen while limiting flow lines.

Smartbatch™ Frost Collection - Translucent colors to provide a premium frosted appearance in PET bottles.

OnColor™ IR Sortable Black - Black colorant that allows black polymers to be detected by near infrared (NIR) sorting equipment, enabling recycling.

NOTE: Technologies listed above may be available in either solid or liquid formats. Contact your Avient sales representative for more information.



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