



COMPLETE PRODUCT OFFERING FOR ALL YOUR PET/PACKAGING NEEDS

PolyOne's Color & Additives Masterbatches Group is focused on, and experienced in, serving the polyethylene terephthalate (PET) packaging industry. We provide a complete offering of OnColor™ color masterbatches, OnCap™ additives and OnCall™ services. With PolyOne, you get high-performance, easy-to-use products and services that help you bring your PET product solutions to market faster.

FEATURES AND BENEFITS

- ▶ Fast identification and delivery of colorants, additives and color matches
- ▶ More than 30 standard colorants and effects
- ▶ Custom colorants to meet your exact specifications
- ▶ Additives to protect against acetaldehyde, UV light and dust
- ▶ Unique concentrates that combine colorants and additives

Our color masterbatches and additives are available as standard catalog products or can be customized for your exact end-use application. For even greater efficiency, we offer Smartbatch™ concentrates, which combine our PET-specific colorants and additives in one masterbatch. PolyOne's PET colorants and additives can be used in injection blow molding, injection stretch molding, continuous extrusion processes and injection molding processes.

For more information about our PET products, our total capabilities in serving the packaging market or to order a color chip or bottle sample, call us at **1-866-POLYONE**.



ONCOLOR™ COMPETE™ COLORANTS FOR PET

We offer a wide range of standard and custom colorants for PET packaging end-use applications.

- ▶ **Standard “Catalog” Colorants** – Need quick delivery of standard colors such as Soda Bottle Green, Water Bottle Blue, Cobalt Blue and Amber? Call PolyOne and select from our diverse array of ComPETe catalog color masterbatches, which are supplied in PET or PET-compatible carriers.
- ▶ **Custom Colorants** – We also custom-formulate color concentrates to meet the demanding requirements of PET and PETG resins for your packaging end-use applications. These concentrates require minimal adjustments from neat PET processing parameters and can provide improved process performance compared with natural PET.

ComPETe colorants are available in three forms to meet your equipment and processing needs:

PRODUCT FORM	FEATURES & BENEFITS
ComPETe T	<ul style="list-style-type: none"> ▶ Standard pellets or mini-beads (pellet counts from 40-880 pellets per gram) ▶ Improved color dispersion ▶ Nondusting ▶ Easily processed opaques and transparents ▶ Loading rates 2%-4%
ComPETe F	<ul style="list-style-type: none"> ▶ Freez-Dri™ flakes ▶ Wax carrier ▶ Improved processing window of PET ▶ Excellent dispersion in transparents ▶ Loading rates 0.01%-1%
ComPETe L	<ul style="list-style-type: none"> ▶ Liquid ▶ Reduces color changeover time ▶ Loading rates 0.01%-0.5%



ONCAP™ ADDITIVES FOR PET

PolyOne’s OnCap™ thermoplastic additive product family features a wide range of performance, process and purge additives for your PET packaging needs. PolyOne can help eliminate issues related to the use of PET through our catalog concentrates, for which you adjust the usage rate to meet your needs, and our customized concentrates, which are created for your specific application and usage rate.

ACETALDEHYDE SCAVENGER

The acetaldehyde (AA) scavenger additive reduces acetaldehyde in PET up to 82 percent and solves AA-related taste and odor issues, making it ideal for FDA-regulated food and beverage, and health and beauty packaging applications. The AA scavenger additive is less costly and can be used at lower rates than traditional AA-reducing solutions.

PET AA SCAVENGER CATALOG PRODUCTS			
Catalog Product	Recommended Usage Rate	Acetaldehyde Percent Reduction	Bottle Color
CC10024343WE	3.00%	65%	Very Slight Yellow
CC10024344WE	3.00%	70%	Very Slight Yellow
CC10024848WE	4.00%	55%	Slight Yellow
CC10024852WE	4.00%	80%	Slight Yellow

UV PROTECTION

PolyOne's absorber and inhibitor concentrates protect your PET packaging products from damaging ultraviolet (UV) light in the 280 to 390 nanometer range. The nonyellowing and nonclouding concentrates provide protection for UV penetration for products such as dyes, perfumes, vitamins and food. These additives are available for both FDA-regulated and non-FDA applications.

PET UV CATALOG PRODUCTS			
Catalog Product	Recommended Usage Rate	Transmission at 390nm	Percent Bottle Wall Thickness
CC10008704WE	2.00%	<20%	0.018"
CC10044545WE	4.00%	<10%	0.018"
CC10056637WE	2.00%	<5%	0.018"

REBOOST™ CONCENTRATES

PolyOne's ReBoost™ Concentrates are designed to prevent yellowing during the shutdown and restart of your stretch blow molding equipment. These concentrates may also reduce yellowing during recycle and regrind operations. In addition, adding ReBoost Concentrates to help prepare shutdown of your lines reduces specking impact at time of restart. ReBoost Concentrates are available in standard masterbatches as well as custom formulations for your specific resin mix.

ANTISTATS

PolyOne's antistatic additives help prevent dust buildup on PET packaging, reduce scuffing and can act as a slip agent for PET preforms. Typically used for personal care packaging applications such as bottles, caps and closures, the antistat additives do not cloud or yellow PET during the manufacturing process because of the additive's excellent heat stability. The additive can be used in both colored and clear applications. It is incorporated directly into the plastic mix, thus eliminating costly secondary processing steps.

ANTISTAT CATALOG PRODUCTS			
Catalog Product	Recommended Usage Rate	Resistivity at 50% Relative Humidity	Surface Days in Test Chamber
Natural Resin	n/a	10 ¹³	60
CC10053196WE	4.00%	10 ¹¹	60
CC10053197WE	4.00%	10 ⁹	60

Our antistats (used in bottle on left) prevent dust buildup and scuffing, and also will not cloud or yellow PET.



AA scavenger additive (used in bottle on left) improves color and addresses AA-related taste and odor issues.



ONCALL™ SERVICES – PROTOTYPE BLOW MOLDED COLOR MATCHES

Eliminate the need to interrupt your production process to get a color match approved. PolyOne has the solution – we can quickly prototype blow molded bottle samples in your exact color. These bottles are a much more accurate representation of the final product and are sent directly to the molder or OEM for approval. In addition to color matching, our blow molding machines are available to perform short prototype production runs.

BENEFITS OF PROTOTYPE BLOW MOLDED COLOR MATCHES INCLUDE:

- ▶ Eliminating production interruptions for color sampling
- ▶ Fewer iterations needed for color approval
- ▶ Concentrates that are proven to work under blow molding conditions
- ▶ Approving final color in production-quality bottles instead of color chips
- ▶ Three wall thicknesses (10, 20 and 30 mm) to simulate three letdown ratios
- ▶ Prototype bottles establish a target color as well as light and dark limits
- ▶ Prototype bottles can be customized with your specific blow-pin, cavity and neck splits



JUGADAPTER™ COLORANT FEEDING SYSTEM

We offer a cleaner method of metering PET colorants and preventing the colorant spillage associated with typical hopper systems. The JugAdapter™ feeding system easily replaces the standard colorant hopper of the popular Movacolor™* colorant feeder and allows a 2.5-gallon jug of colorant to be attached.

BENEFITS OF USING THE JUGADAPTER FEEDING SYSTEM INCLUDE:

- ▶ Reducing and virtually eliminating colorant spillage
- ▶ Allowing faster and cleaner color changeovers
- ▶ Increasing plant safety by providing easier access to the hopper
- ▶ Giving a visual level of reference because ComPETe colorants are supplied in see-through containers

*Movacolor (Netherlands) distributed in North America by Romax Inc.

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That is our mission at PolyOne, and we fulfill it by delivering premium-quality products and services, which our customers use to enhance their own products. We believe no competitor can match our technical expertise because no workforce can outperform the people of PolyOne. Our people are ONE team working together – our strength and our pride. Their skills, passion and dedication are shaping a potent industry leader, a concerned corporate citizen and a great place to work.

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