

**Ampacet R3 Sustainability Masterbatch Solutions**

Ampacet Solution	Value Proposition	Major Contribution				Application	
		D4CE (Design for Circular Economy)	Recycled Content (*)	Composting EoL (End of Life)	Renewable content (bio-sourced)	Flexible Packaging	Rigid Packaging
<b>REVIVE™ Portfolio</b> 	A platform of compatibilizer masterbatches to homogenize reprocessed multi-material blends improving aesthetics, mechanical & physical properties of regrind materials. REVIVE™ masterbatches allow the valorization of multi-material packaging industrial scraps and packaging wastes by enabling use of various reclaim material back into quality film applications, offering an alternate end-of-life to landfill and representing a solution for circular economy of multi-material packaging.	X	X			X	X
<b>REC-NIR-BLACK portfolio</b> 	REC-NIR-BLACK masterbatch is NIR-transparent, therefore allows sorting with near-infrared (NIR) optical sensors at recycling stations (not possible with masterbatches containing carbon black). Enables reuse and recycling of black packaging waste and allows recyclers to valorize this waste and support circular economy.	X					X
<b>REC-NIR-Color portfolio</b>	REC-NIR-Color masterbatch are a standard range of colors which are NIR-transparent therefore enables sorting with (NIR) optical sensors at recycling stations.	X				X	X
<b>BIAXACE™ Portfolio</b>	A platform of additive and white masterbatches allowing the manufacture on existing BOPP film assets of Bi-axially Oriented Poly-Ethylene (BOPE) films for use, in some laminated film structures, in substitution of non-Polyolefin/Non-Polyethylene film substrates, leading to mono-material Polyethylene packaging supporting the flexible packaging circular economy via higher quality of mechanically recycled polyethylene stream.	X				X	
<b>Antioxidant (100900-E)</b>	Specialty stabilizer designed to protect recycled polyolefins from excessive degradation (e.g. gel formation, yellowing,...) protecting the aesthetics & mechanical properties of packaging allowing high amounts of post-industrial and post-consumer recycled resins.	X	X			X	X
<b>Foaming (1000423-E &amp; 103357)</b>	Special foaming solutions designed to reduce film density, generating small and medium cell structures. Allowing to reduce density of highly filled polyolefin films and labels, useful when sink-float density separation is used during the sorting & recycling process.	X				X	
<b>Safari White PET 7100177-E</b>	Safari White protects dairy products from photo-degradation by providing >99.5% PET bottles opacity with less than 4% of TiO2 loading. This technology enables to reduce drastically the content of minerals hence complying with French recyclability guidelines regarding the mineral	X					X
<b>Odor Scavenger (1000258-E)</b> 	Innovative wide-spectrum odor absorbing solution designed for use of high content of post-consumer recycled polymers. Trap molecules responsible of smell, keep them inside the polymer matrix & reduce significantly the perception of smell allowing a high content of post-consumer recycled material.		X			X	X
<b>Blue Edge 226 (1604226-EQ)</b> 	A specialty masterbatch solution to off-set brownish shade of recycled polyethylene (rPE) resin and minimize gel formation, preserving the aesthetic of secondary packaging for higher shelf appeal, allowing higher use of rPE.		X			X	
<b>Blue Edge 78 &amp; Green Edge</b>	Blue Edge & Green Edge counteract the yellowish/brownish "dirty" effect of post-consumer PET recycled plastics and enhance bottle brightness with either a lighter bluish (Blue Edge) or lighter greenish tone (Green Edge) giving it a clearer, fresher look which is more eye-catching.		X				X
<b>Desiccant (103450-A / 101400-B)</b>	Prevent issues linked to high moisture content of recycled polymers, allowing higher use of post-consumer recycled resins.		X			X	X
<b>White on PCR (1101204-E)</b>	General purpose white masterbatch based on Post Consumer Recycled (PCR) Polyethylene carrier resin system.		X			X	X
<b>PCR/Recycled Carrier</b>	Ampacet provides masterbatches with Recycled Resin as carrier to support its customers to reach high level of recycled material in the end article.		X			X	X
<b>Color Matching Service with Post Consumer Resin (PCR)</b>	Ampacet develops and matches colors for plastic parts containing up to 100% of Post-Consumer Resin in various polymers including r-HDPE and r-PP.		X			X	X
<b>REC-O-BLACK Portfolio</b>	Black Masterbatch portfolio based on RECYcled and RECOVered post-consumer feedstocks, reducing carbon foot-print & use of fossil fuel derived raw materials.		X			X	X
<b>BIORANGE (PBAT Portfolio)</b>	White, Black, Color & Filler Range of masterbatches to color biodegradable bioplastics (e.g. PBAT, TPS, PLA...) designed for compostable film applications (e.g. fruits & veggies bags, organic waste bin liners, routing bags, mulch...).			X		X	X
<b>BIORANGE (PLA Portfolio)</b>				X	X	X	X
<b>"Bio-sourced" WHITE (1100817-E)</b>	Premium quality 60% White masterbatch based on bio-sourced carrier resin for a higher independence from fossil fuel.				X	X	X

(\*) These solutions are supportive to a higher content of recycled material in the end articles, either because they already contain some recycled material or as enhancer to allow use of recycled material by reducing side effects (e.g. smell, color, defects...)

**The Ampacet commitment to a greener planet:  
Sustainable products, processes and practices**

R3 Sustainable Solutions represent Ampacet's commitment to the global circular economy with a growing portfolio of innovative masterbatches benefiting customers, the industry and the planet. With these solutions, Ampacet helps customers reduce waste and energy in manufacturing, reuse more post-consumer resins in finished products and recycle a higher percentage of their products.

Ampacet continues to reduce the environmental impact of its global manufacturing and distribution operations. The company also works with industry partners and organizations around the world to highlight the positive impact of plastics and develop processes and systems that improve sustainability.

