



**M**ayzo is a true specialty chemicals company that is tirelessly driven to meet and exceed the needs of our customers. Since 1986, we have been supplying a full line of additives, release coatings, nucleants, hydrocarbon tackifiers and other specialty chemicals to a variety of markets with one common mission: unparalleled technological expertise and innovative solutions that meet our customers' diverse needs. All with the kind of hands-on support and keen focus on customer satisfaction that is all too often lost in today's mega-business environment.

To deliver on our mission, we staff our team with knowledgeable sales personnel and industry experts who provide insight and know-how. We pride ourselves on having the right people that can offer unparalleled formulation flexibility and applications solutions. Utilizing our broad range of chemistries and network of resources, we work with our customers to determine the right solution based on what works best for their application. Since we can deliver fully formulated custom solutions in a variety of product forms, delivery systems and packaging options, our customers enjoy reduced inventories, less waste and optimized process efficiencies. The end result is both time and money saved. All with a dedicated and responsive Mayzo partner with you every step of the way.

To truly understand the Mayzo difference, you need to experience it for yourself. Give us a call. Tell us your problems. We'd love to earn your business today.



Mayzo Makes It Possible

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MAYZO  
SOLUTIONS  
GUIDE



Mayzo Makes It Possible

Antioxidants

Light  
Stabilizers

Stabilizer  
Blends

Release  
Coats

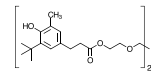
Specialty  
Additives

Tackifier  
Resins

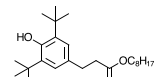
Imagine working with a company that has  
no boundaries on exploring solutions.



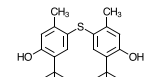
Processing & Thermal Stabilizers



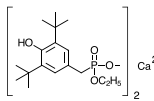
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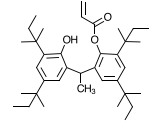
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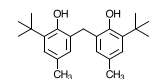
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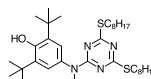
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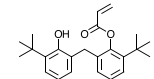
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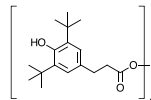
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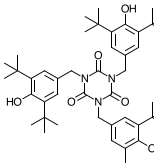
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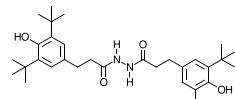
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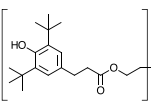
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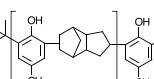
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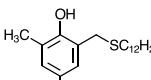
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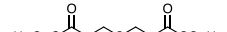
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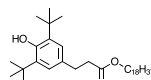
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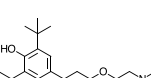
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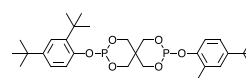
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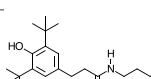
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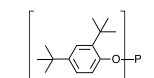
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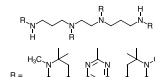


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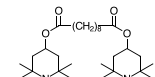


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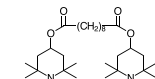
Light Stabilizers (HALS)



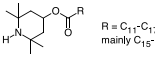
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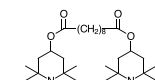
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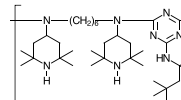
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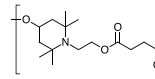
BLS 1880 PE



BLS 292

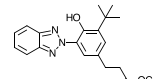


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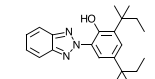


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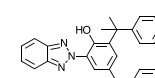
Light Stabilizers (UV Absorbers)



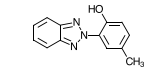
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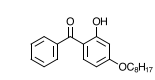
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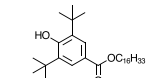
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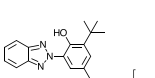
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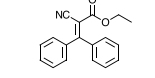
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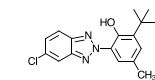
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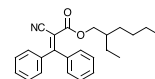
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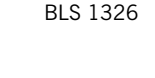
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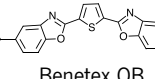


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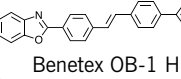


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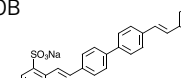
Optical Brighteners



Benetex OB



Benetex OB-1 HP



Benetex OB-M1

Product	Solubility		Delivered Form	Substrate				Chemical Composition	Characteristics
	Aqueous	Solvent		Cloth	Film	Foil	Paper		
<b>Solvent Based Release Coatings</b>									
Escoat® P-20 (solid)		●	Powder		●		●	PVODC	Higher melt point, tight melt point range, stable aging
Escoat P-20 (liquid)		●	Liquid		●	●	●	PVODC	Pre-blended (10% solids), further solvent addition is required
Escoat P-23		●	Liquid		●	●		PVODC	Pre-blended (3% solids), ready to coat for tape printers
Escoat RA-70A		●	Liquid		●	●		PVSC	Pre-blended (1.5% solids), ready to coat, non-HAPS
<b>Extrudable Release Masterbatches</b>									
Escoat P-77			Pellet		●			PVODC	Release coat masterbatch in LLDPE, no solvents needed
Escoat P-88			Pellet		●			PVODC	Release coat masterbatch in PP, no solvent needed
<b>Water Based Release Coatings</b>									
Escoat RA-130W	●		Liquid	●	●		●	Acrylic	Strong wetting and adhesion performance; ink jet printable
Escoat RA-150W	●		Liquid	●	●		●	Urethane	Standard adhesive compatibility, controlled release, non-hazardous
Escoat RA-160W	●		Liquid	●	●		●	Fluoropolymer	FDA approved water dispersion for non-solvent applications
Escoat WFX Series	●		Liquid	●	●		●	Acrylate	Printable, 35% solids, adjustable release level
Escoat WPX Series	●		Liquid				●	Modified Starch	Printable paper, 50% solids, sticky notes, adjustable release

PVODC = Polyvinyl Octadecyl Carbamate PVA = Polyvinyl Acetate PVSC = Polyvinyl Stearyl Carbamate PET = Polyester

<b>Release Coat Tracers</b>									
Benetex OB		●	Powder	●	●	●	●	C <sub>26</sub> H <sub>26</sub> N <sub>2</sub> O <sub>2</sub> S	Fluorescent whitening agent
Benetex OB PLUS		●	Powder	●	●	●	●	C <sub>26</sub> H <sub>26</sub> N <sub>2</sub> O <sub>2</sub> S	Fluorescent whitening agent, finer particle size
Benetex OB-M1	●		Powder	●	●	●	●	C <sub>28</sub> H <sub>20</sub> S <sub>2</sub> O <sub>6</sub> Na <sub>2</sub>	Water soluble fluorescent whitening agent Water dispersion with FDA for non-solvent applications

Non-Silicone Release Coatings

Mayzo provides a variety of non-silicone release coatings for pressure sensitive and self-adhesive substrates (PE, PP, PET, PVC, cloth, foil and paper), packaging tape, heat transfer films/tapes, and protective films. They can be used with hot melt (SIS/SBS) applications, acrylic, and natural rubber.

Application	Product			PP Resin Type			Optimal Resin Properties		Beta Benefit
	MPM 1110	MPM 1113	MPM 2000	HPP	ICP	RCP	MFR	Modulus, kpsi	
Geogrids	B	G	B	B	NR	NR	0.7 - 4.0	> 200	Reduced grid weight by up to 20% while maintaining tensile strength
Thermoformed Containers	G	G	B	B	B	NR	2 to 4	> 260	Reduced part weight, reduced cycle times, higher crush strength
Microporous Film	G	B	B	B	B	NR	2 to 4		Increased porosity, breathable (BOPP), lower density, white appearance without pigment
Li-ion Battery Separator Film	NR	B	NR	B	B	NR	2 to 4		High breathability, good physical properties, ideal for very thin films
Injection Molded Parts	G	G	B	B	B	NR	> 5		Improved impact strength, higher ductility, higher break elongation
Rotomolded Parts	G	B	B	B	NR	G			Improved impact strength and reduction of brittleness with no effect on flow properties
Pipe Applications	B	B	B	G	G	B	0.3 to 4		Reduced brittleness and better long term creep performance
Welding/Heat Sealing	G	B	B	G	G	G			Improved weld strength and lower heat sealing temperatures

B = Best G = Good NR = Not Recommended

### Beta Nucleating Masterbatch

Mayzo offers a family of beta nucleating masterbatches that are designed to produce high levels of beta phase crystallinity in molded and extruded polypropylene applications. Each masterbatch is pelletized and contains a different, high performance, proprietary beta nucleant. These masterbatches are typically used at a concentration of 0.8% – 1.5% and all are in compliance with both FDA and EU regulations for food contact applications.

**MPM 1110** is a pelletized masterbatch containing a high performance proprietary beta nucleant formulation in a polypropylene homopolymer resin. This masterbatch can be added to non-nucleated and some pigmented polypropylene polymers including homopolymers, random copolymers, and impact copolymers, in order to produce high levels of beta phase crystallinity in extruded sheets, films, and pipes, as well as injection molded parts. This masterbatch is particularly suitable for extruded applications that are gray or black colored such as landscape geogrids and certain pipe applications.

**MPM 1113** is a pelletized masterbatch containing a high performance proprietary beta nucleant formulation in a polypropylene homopolymer resin. This masterbatch can be added to non-nucleated polypropylene polymers and is particularly effective in random and impact copolymers, in order to produce high levels of beta phase crystallinity. When extruded sheets are stretched in the solid state to produce

oriented films, these films will develop microvoids causing them to become white/opaque in appearance and undergo a reduction in density. This functionality makes MPM 1113 an excellent choice for breathable films and battery separator films.

**MPM 2000** is the latest generation beta nucleating masterbatch and is broadly used in PP homopolymers for thermoformed, injection molded and extruded applications. It produces high levels of beta crystallinity in molded or extruded parts resulting in dramatically higher impact strength and ductility, with very little reduction in modulus or tensile strength. If the final fabricated article is produced by post-orientation of an extruded sheet at temperatures below the melting point of the beta crystal phase, then microvoids will develop, the density of the article will go down and its opacity will go up. In the case of oriented films it is possible to lower the final film density by 15% when uniaxial stretching is done (MOPP), and by up to 70% when biaxial stretching (BOPP) is done. In the BOPP process it is possible to make breathable films when high levels of porosity are achieved. When the thermoforming process is used, the processing window of polypropylene is broadened dramatically, and cycle rates can be increased by more than 25%. Material distribution in the final part is also improved leading to potential down-weighting of thermoformed food containers by up to 20%. High levels of calcium carbonate may also be used thereby improving physical properties and reducing cost. MPM 2000 can be used effectively in polypropylene resins that already contains alpha-nucleants such as sodium benzoate or talc.

Application	Haitack JH-3200	Haitack JH-3201	Haitack JH-3204
Hot Melt Adhesives	●	●	●
Pressure Sensitive Adhesives	●	●	●
Solvent Adhesives	●	●	●
Nonwovens	N/A	●	●
Packaging	●	●	●
Tapes and Labels	●	●	●
Building and Construction	N/A	●	●

Characteristics			
Softening Point	92	93	99
Gardner Color	2.8	2.7	3.1
Glass Transition Temperature	49	N/A	57
Molecular Weight	1747	1912	1970

Mayzo is the exclusive distributor for the Americas of Haitack® C5 Hydrocarbon Tackifier Resin produced by Ningbo Jinhai Chenguang Chemical Corporation.

C5 Hydrocarbon tackifier resins are used in the production of pressure sensitive adhesives tapes and labels, hot melt adhesives for nonwoven product assembly, modified wax compounds, hot melt road marking compounds, rubber compounding, and paint and coatings applications.

Jinhai® is a new green-field facility with state of the art manufacturing operation including, stripping, R&D labs, QC labs, packaging and shipping facilities.

The raw material stream is piped in from Sinopec, one of the leading oil refineries in the world.

The raw material stream including piperlyene is secured with a 20 year supply agreement with Sinopec.

