Polyfil Corporation

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About Us

Polyfil began operations in 1984. We are ISO 9001 certified and the largest independent manufacturer focusing solely on the development and production of performance enhancing additive concentrates for polyolefins. Our product line includes antistats, antifogs, chemical foaming agents, ultra violet stabilizers and blockers, purge and shutdown compounds, slips, antiblocks, processing aids, antioxidants, antimicrobials, gas and odor absorbers, release agents, insect repellent, mineral filled concentrates, multifunctional additive concentrates and custom formulated products.

Polyfil’s 60,000 square foot manufacturing and laboratory facility is located in Northern New Jersey. This modern facility allows Polyfil to produce, most economically, the highest quality additive concentrates on the market today.

Technical Support

Polyfil’s laboratory facilities are available to our customers for product development, testing and problem solving. We have the ability to produce blown film, cast film; profile extrusion, injection molding and small compound quantities using twin screw and continuous mixer technology. We have in-house resources to perform static decay and surface resistivity, moisture and nitrogen analysis, FT-IR spectrometry, filler content analysis, C.O.F., and gas yield.
Additives For Films

Polyfil Corporation has been producing the industry’s highest quality additive concentrates for decades. Our broad product line includes many unique masterbatches that are exclusively available from Polyfil. Our production methods and quality control assure the processor of lot-to-lot consistency, performance and value. Polyfil’s experienced team provides rapid responses to orders and technical inquiries. Backed up by extensive laboratory and pilot facilities we can quickly develop new products designed to meet a customer’s specific requirements.

Additives for Foams

Polyfil Corporation is pleased to introduce its new line of additives designed specifically for use in thermoplastic foam processes. Products are designed to enhance both physically and chemically foamed products such as protective and food packaging, wire insulation, cap liners, films, label stock, wood composites and structural foam products.

To support these efforts, Polyfil Corporation has recently expanded to facilitate the development and production of new products. This will present new opportunities for our customers participating in the foams market. We’ve added additional lab equipment to support both our product development and analytical activities and have the capability of employing different compounding technologies that best meet product requirements.
Product Line for Films

ANTI-BLOCK
Polyfil produces a very broad range of anti-blocking concentrates utilizing various particle size silicas, talcs, and other minerals, some with special surface treatments to prevent absorption of slip, processing aid, and other additives. Active levels of 5% to 50% are available in various polymers to suit your specific requirements.
A new line of high clarity concentrates, utilizing unique technology, provides outstanding see-through and low haze levels not previously obtainable.
For scratch free films suitable for packaging easily marred products, Polyfil offers organic anti-block masterbatches free from abrasive minerals.

ANTI-FOGS
Polyfil Corporation has developed a line of high performance anti-fog concentrates for polyethylene and ethylene copolymer films.
For hot and cold fog prevention in food packaging we have engineered a masterbatch which offers excellent heat stability, organoleptics, heat seals, lamination strength, and printability. It is long lasting and performs at low usage levels, providing cost effectiveness.
For greenhouse films Polyfil offers a long lasting anti-fog which works at lower usage levels than typical commercial products. For economy we can produce custom tailored multi-functional products combining it with our superior UV stabilizing/blocking and IR blocking technologies.

ANTI-MICROBIAL
High performance anti-microbial concentrates for protection of your plastic products are available exclusively from Polyfil Corporation.
These unique products are available, under secrecy agreement, to meet demanding applications where other technologies do not provide sufficient safety or efficacy.

ANTI-OXIDANT
Polyfil supplies polyolefin based anti-oxidant concentrates for many purposes. Proper selection, through discussion with your representative, will solve many common processing problems such as discoloration, odor, gels, and degradation of physical properties. Cost savings can be obtained with increased use of recycled materials.
We also offer BHT and vitamin E masterbatches for food packaging where extended shelf life is desired. Our vitamin E products have been shown to produce films with exceptional organoleptic and appearance properties at very low usage levels, while reducing die buildup problems.

ANTI-SLIP CONCENTRATE
Polyfil Corporation has developed an additive concentrate designed to increase the coefficient of friction of polyolefin films. When used at one to five percent, it will improve the tackiness, strength, and heat seal properties of a film without the use of blooming additives. When incorporated into high slip reprocessed resins it will increase the C.O.F. to desired levels.
ANTI-STATIC
To provide static dissipation in polyolefins, Polyfil produces a variety of concentrates for specific end product performance. Economical stearates prevent static cling and dust buildup. Amines offer a balance of cost and efficacy for a broad number of end uses. High performance amides are suitable for the most demanding applications such as electronics packaging where corrosivity and stress cracking must be avoided while ease of processing is maintained. Unique concentrates have been engineered for olefin foams and for high temperature polypropylene processing. New non-amine, non-amide technology provides concentrates with excellent anti-static properties at low usage levels.

CHEMICAL FOAMING AGENTS
For foaming of polyolefin films, Polyfil offers several grades of Chemical Foaming Agents. Films as thin as 1 mil can be foamed to reduce weight or create porous films.

CUSTOM CONCENTRATES
Polyfil's expert staff can work with you to create masterbatches which will suit your unique requirements. Utilizing our broad resources, we can quickly develop additive concentrates which will enhance the properties of your products.

FLAME RETARDANT / U.V. STABILIZER CONCENTRATE
Polyfil Corporation has developed a unique flame retardant / U.V. stabilizer concentrate system for polyolefins. FRC-2005 provides a combination of properties heretofore unavailable for film, sheet, foams, and molded articles.

PRODUCT ATTRIBUTES
• Low specific gravity
• Does not degrade the physical properties of the base polymer like highly filled systems do.
• Offers excellent long term thermal and U.V. protection
• Non-yellowing
• Non-blooming
• Non-toxic, contains no heavy metals
• Does not form dioxins when heated or incinerated; complies with stringent European environmental laws
• Items made with FRC-2005 can pass U.L., MVSS-302 and NFPA flame tests when properly formulated
• Variations are available for low and high density polyethylene and for polypropylene

GAS ABSORBER
Polyolefin packaging for food and beverages often has undesirable odors caused by residual catalyst, monomer or processing conditions. Polyfil has produced a series of concentrates which absorb the offensive molecules and improve the organoleptics of the package. Certain types are also useful in controlled atmosphere packaging of fresh produce, flowers and seafood. Absorption of gasses that promote ripening and spoilage results in extended shipping and shelf life for these perishable products.
INSECT REPELLENT
Repels ants, termites, cockroaches and many different insects. We will work with you to obtain EPA compliance.

MINERAL ADDITIVES
Polyfil has engineered a range of mineral concentrates which provide property enhancement for many polyolefin products. By using the latest raw material technology, we produce superior masterbatches and compounds that improve the stiffness, heat resistance and impact strength of molded and extruded articles. A major economic benefit is a significant increase in production rates due to rapid heat transfer. For film extrusion, a series of products modify properties to provide a low gloss matte finish with better ink adhesion and adhesive bonding for labels and packaging. Other concentrates are used to produce paperlike films with low abrasivity, tailored to specific applications.

MULTI-FUNCTIONAL
For ease of use, inventory reduction and cost benefits, Polyfil produces standard and custom multi-purpose concentrates. From slip/anti-block masterbatches for polyolefin films to complex blends including proprietary additives, we can help you design a product to suit your specific requirements. By utilizing our outstanding laboratory facilities, which include blown and cast film lines, and partnering with innovative raw material suppliers, Polyfil can quickly bring your concepts to realization.

PP CLARIFIER
A high efficiency clarifier/nucleator concentrate for polypropylene is available from Polyfil. This product offers excellent clarity for film, sheet and molded articles, while improving stiffness and production rates. Low usage levels provide a cost/performance advantage for the processor.

PROCESSING AIDS
While offering better performance, many of today’s polyolefin resins are difficult to process. To improve production rates, surface appearance and physical properties, Polyfil Corporation has developed a series of processing aid concentrates for molding and extrusion. We employ various raw materials to provide an optimum balance of cost and performance for your specific needs.

PURGE/SHUTDOWN COMPOUNDS
Polyfil has designed a series of safe, easy to use purge compounds for extruder maintenance and production optimization. Regular usage will keep barrels and dies free of carbonized resin and pigment plate out which can cause die lines, gels and specks in your product. When used during resin or color changes they will reduce scrap and downtime substantially, adding to your bottom line. Some types also serve as shutdown compounds to prevent thermal resin breakdown when extruders are idled, speeding your next startup.
**RELEASE AGENT**
A 5% active, release agent concentrate has been developed by Polyfil Corporation. When used in polyethylene release films for adhesive backings, it offers advantages over silicone coated films. It does not rub or pick off and allows ease of peel at reduced cost. Other applications include overwrap and packaging for sticky products such as rubber bales, dried fruits, confections and baked goods.

**SLIP**
Concentrates are available from Polyfil with oleamide fast blooming and erucamide slow blooming slips at 1% and 5% active levels. Grades include superior quality masterbatches for FDA food contact or medical packaging and economical carbonate filled products for utility films. Higher molecular weight versions are useful for cast film and extrusion coating applications. A new product has been developed for better coefficient of friction control in metallocene polymer films. For applications demanding low taste and odor, Polyfil produces slip concentrates with excellent organoleptic properties.

**U. V. STABILIZER**
For enhanced outdoor performance in polyolefins, Polyfil offers a series of concentrates designed to meet your specific needs. Employing stabilizers, absorbers and blockers, alone or in combination, we can tailor masterbatches to your requirements. A unique group of concentrates can protect the contents as well as the package. By blocking ultraviolet light while allowing visible light to pass through, films can prevent product fading and degradation from sunlight or fluorescent bulbs. An FDA version improves shelf life of foods and beverages, protecting color, flavor and vitamin content.
Product Line for Foams

Chemical Foaming Agents
CFAC-0500  Nucleant for Wire & Cable
CFAC-0600  Activated Nucleant for Wire and Cable
CFAC-1812  Polyolefin films porous or large cells
CFAC-2200  For All Polyethylene Sheet
CFAC-2426  Thin Polyolefin Films to 1 mil
CFAC-3900  Activated azo for PE Sheet
CFAC-4001-UN  Low Temp Nucleant for LDPE Foam
CFAC-4003-UN  Nucleant and foaming for PE and PS
CFAC-5302-CS  Commodity Grade/ Molding and Extrusion
CFAC-6005  High Gas yield for fine cell PE molding and extrusion

Antimicrobials
Custom  We provide formulations that specifically meet our customers specifications.

Anti-Stats
ANC-0500  Non-Amine/Amide in Polyethylene. Passes mil. spec. at low usage levels. Compatible with GMS.
NSC-0500  For on-line static elimination.

Cell Control and Aging Modifier
CCX-1501  Low blooming GMS concentrate.

Flame Retardant
FRC-2005PP  Recommended for PP foams to meet MVSS-302 specification.

Insect Repellent
BPC-1000  Repels ants, termites, cockroaches and many different insects. We will work with you to obtain EPA compliance.

Processing Aid
DPAC-0300  Prevents plate-out on dies and sizers used in foam profile extrusion. Increases rate at lower temperatures.

Purge Compound
PRC-1025  Purge and shutdown compound.

Talc Nucleant
ABC-5000PB  50% Talc in Polyethylene

U.V. Stabilizers
UVC-1011  Chemical resistant HALS.
UVC-1062PP  HALS for polypropylene foams.
UVC-1081PP  For use in PP foams where long term aging under elevated temperatures is required.
UVC-1094  HALS for polyethylene foams.