For more information and technical assistance contact:

Chevron Phillips Chemical Company LP
P.O. Box 4910
The Woodlands, TX 77387-4910
800.231.1212

PREMIUM EXTRUSION AND RIGID PACKAGING RESINS

Marlex® HHM 5502BZ Polyethylene

HIGH DENSITY POLYETHYLENE (HDPE)

This high molecular weight, ethylene-hexene copolymer is tailored for lightweight blow molded containers that require:

- Consistent mold-release properties
- Excellent stiffness
- Exceptional processability
- Durability
- Recyclability

This resin meets these specifications:

- ASTM D4976 - PE 235
- FDA 21 CFR 177.1520(c) 3.2a, use conditions B through H per Table 2 of 21 CFR 176.170(c)
- Listed in the Drug Master File

Typical blow molded applications for HHM 5502BZ include:

- Pharmaceutical containers
- Injection blow molded containers

NOMINAL PHYSICAL PROPERTIES(1)	English	SI	Method
Density	---	0.955 g/cm^3	ASTM D1505
Flow Rate (MI, 190 °C/2.16 kg)	---	0. 35 g/10 min	ASTM D1238
Tensile Strength at Yield, 2 in/min, Type IV bar	4,000 psi	27 MPa	ASTM D638
Elongation at Break, 2 in/min, Type IV bar	600 %	600 %	ASTM D638
Flexural Modulus, Tangent - 16:1 span:depth, 0.5 in/min	200,000 psi	1,370 MPa	ASTM D790
ESCR, Condition B (100 % Igepal), F_{50}	24 h	24 h	ASTM D1693
Brittleness Temperature, Type A, Type I specimen	< -103 °F	< -75 °C	ASTM D746

1. The nominal properties reported herein are typical of the product, but do not reflect normal testing variance and therefore should not be used for specification purposes. Values are rounded. The physical properties were determined on compression molded specimens that were prepared in accordance with Procedure C of ASTM D4703, Annex A1.

Revision Date: February, 2019

Product Regulatory Overview (PRO)
Marlex® HHM 5502BZ Polyethylene

Product Manufacturer

Chevron Phillips Chemical Company LP

Chemical Inventories

All the components of this product are listed on

AUSTRALIA: Australian Inventory of Chemical Substances (AICS)
CANADA: Domestic Substances List (DSL)
PEOPLE'S REPUBLIC OF CHINA: Inventory of Existing Chemical Substances
EUROPEAN UNION: All necessary components have been registered according to Regulation (EU) No. 1907/2006 (REACH)
SWITZERLAND: Exemptions from the obligation to notify/register
JAPAN: Existing & New Chemical Substances (ENCS) inventory
KOREA: Existing Chemicals List (ECL): All substances in this product were registered, notified to be registered, or exempted from registration by CPChem through an Only Representative according to K-REACH regulations. Importation of this product is permitted if the Korean Importer of Record was included on CPChem's notifications or if the Importer of Record themselves
NEW ZEALAND: Inventory of Chemical Substances (NZIoC)
PHILIPPINES: Philippine Inventory of Chemicals and Chemical Substances (PICCS)
TAIWAN: Taiwan Chemical Substance Inventory (TCSI)
UNITED STATES: On or in compliance with the active portion of the Toxic Substances Control Act (TSCA) Chemical Inventory

Food Contact

It is the responsibility of the packaging converter or food packager to verify that the finished article meets both the technical and regulatory requirements of the intended application.

U.S. FDA Food Contact

This product meets the requirements for polyolefin resins intended for food packaging applications as described in the FDA olefin polymer regulations 21 CFR 177.1520(c) 3.2a. The resin may be used in contact with all types of food as defined in Table 1, 21 CFR 176.170(c) and at use conditions B-H as defined in Table 2, 21 CFR 176.170(c).

This product is produced in accordance with good manufacturing practices (GMP) as outlined in 21 CFR 174.5.

European Union (EU) Food Contact

The monomer(s) and the additive(s) of this resin are listed in Commission Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food and all its Amendments.

This product was tested for the overall migration compliance, as well as tested and calculated for specific migration compliance per Commission Regulation (EU) No 10/2011. The tested sample thickness was 3.2 mm (126 mils). The surface-to-volume ratio was 0.603 dm^2 surface area contacted with 93 ml simulant. For measuring the overall migration level, this product was tested with 3% acetic

acid for 10 days at 40°C, with 10% ethanol for 10 days at 40°C, and with olive oil for 10 days at 40°C. For measuring specific migration level(s), this product was tested with 3% acetic acid for 10 days at 60°C, and with olive oil for 10 days at 60°C. With food simulant of 10% ethanol for 10 days at 60°C, the specific migration levels are expected to be lower than the measured levels in 3% acetic acid for 10 days at 60°C, and with olive oil for 10 days at 60°C. This product complies with the overall migration limit (OML) and specific migration limit(s) (SML).

This product does not contain any dual-use additive that is listed on Regulation (EC) No 1333/2008 and its Amendments.

This product meets the requirements of Framework Regulation (EC) No 1935/2004 on materials and articles intended to come into contact with food.

This product is produced in accordance with good manufacturing practice (GMP) as outlined in EU GMP Regulation (EC) No 2023/2006.

Canada Food Contact

A "No Objection" letter for this product has been approved by Health Canada. This product may be used as a food-contact article such as bottle, food pail, cap, and casing under and at the temperature of 212°F (100°C) for all types of food. KS07100109

China Food Contact

This polyethylene resin is an ethylene and hexene copolymer, and is listed on GB 4806.6-2016 "Standard on food-contact use plastic resin" Appendix A Table A.1, as No 101, CAS 25213-02-9. The monomer 1-hexene has SML 3 mg/kg.

The additive(s) of this resin are all listed on GB 9685-2016 "Standard on the uses of additives in food contact materials and articles", and meet the corresponding allowed maximum use levels.

This product was tested and calculated for specific migration compliance. The tested sample thickness was 3.2 mm (126 mils). The surface-to-volume ratio was 0.603 dm^2 surface area contacted with 93 ml simulant.

For measuring the specific migration level, this product was tested with olive oil for 10 days at 60°C. This product met the specific migration limit (SML). With food simulants of 4% acetic acid for 10 days at 60°C and 10% ethanol for 10 days at 60°C, the specific migration levels would be expected to be lower than the level measured in olive oil for 10 days at 60°C.

This resin meets the requirements of GB 4806.6-2016.

This resin meets the requirements of GB 4806.1-2016 General safety requirements for food contact materials and articles.

This resin is produced in accordance with good manufacturing practice (GMP) as outlined in GB 31603-2015 General hygiene standard on manufacturing food contact materials and articles.

Mercosur Food Contact

The monomer(s) and the additive(s) of this resin are listed in Mercosur /GMC/Res. N° 02/12, and Mercosur/GMC/Res. N° 39/19.

U.S. Pharmacopeia (USP)

This product meets the standards set by the United States Pharmacopoeia USP 39 <87> Biological Reactivity Tests, in Vitro.

This product meets the standards set by the United States Pharmacopoeia USP 24 <88> Biological Reactivity Tests, in Vivo - Class VI-70ºC Plastic.

This product meets the standards set by the United States Pharmacopoeia USP 39 <661.1> Plastic Materials of Construction – Identification, Physicochemical, Extractable Metals, and Plastic Additives tests.

European Pharmacopoeia (EUP)

This product has not been tested according to any European Pharmacopoeia guidelines.

Drug Master File (DMF)

This product is listed in the U.S. FDA Type III Drug Master File 1016.

This product is listed in the Health Canada Drug Master File 9389.

Regulation 1223/2009 of 2009-11-30 on Cosmetic Products

Regulation 1223/2009 is not applicable to this product. This product is not defined in the regulation as a cosmetic product, and it does not contain any substances listed as prohibited in cosmetic products.

EU Classification and Labeling

This product is not a dangerous substance according to Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.

Animal-Derived Materials (ADM)/ BSE/TSE

No animal-derived materials are used in the manufacture or formulation of this product. This product can be considered free from bovine spongiform encephalopathy (BSE) and other transmissible spongiform encephalopathies (TSE).

Kosher

No animal-derived materials are used in the manufacture or formulation of this product and as such no materials of porcine/pigs, fish, shellfish, rabbits, reptiles, blood, or derived from blood are used. No grape, grape derived, ethanol, or ethanol derived materials are used. CPChem has established manufacturing practices to assure that the quality of the product is maintained during manufacture and distribution. Chevron Phillips Chemical Company has not made any efforts to certify its Polyethylene resins as Kosher or in compliance with Kosher guidelines.

Halal

No animal-derived materials are used in the manufacture or formulation of this product and as such no materials of ruminant animals (bovinae/cattle, caprine/goat, ovine/sheep), non-ruminant animals (humans, insects, fish, porcine, poultry), blood, or derived from blood are used. No ethanol, ethanol

derived materials or fermented materials are used in the manufacture of this product. Chevron Phillips Chemical Company has not made any efforts to certify its Polyethylene resins as Halal or in compliance with Halal guidelines.

California's Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)

This product, as shipped, does not contain any carcinogens or reproductive toxins presently known by the State of California to cause cancer or reproductive toxicity at a level of exposure subject to the requirements of California Proposition 65.

Consumer Product Safety Improvement Act of 2008 (H.R. 4040)

This product does not contain lead and phthalates. It therefore complies with the relevant sections of the Consumer Product Safety Improvement Act of 2008 (H.R. 4040).

Clean Air

This product does not contain any ozone depleting substances, including those listed in Regulation (EC) No 1005/2009.

This product does not contain any of the following substances regulated by the Clean Air Act:

- Class I or Class II Ozone-Depleting Substances (CAA Section 602)
- Hazardous Air Pollutants (CAA Section 112)
- Accidental Release Prevention Substances (CAA Section 112(r))
- Volatile Organic Chemicals (CAA Section 111)

Heavy metals, RoHS, WEEE, Waste packaging, CONEG

No heavy metals (i.e., antimony, arsenic, barium, cadmium, chromium, lead, mercury, selenium, or silver) are purposely added to this product in quantities that would violate governmental guidelines. The summation of lead, cadmium, mercury, and hexavalent chromium in this product is less than 20 ppm. No polybrominated biphenyls (PBB), polybrominated diphenyl ethers (PBDE), Deca Brominated Diphenyl Ethers (Deca BDE), or phthalates are intentionally added to this product. This product therefore meets the relevant requirements of the following Directives or Regulations:

- Directive (EU) 2017/2102, 2015/863, 2011/65/EU and 2002/95/EC (RoHS)
- 2002/96/EC and 2012/19/EU (WEEE)
- 2000/53/EC (ELV)
- 94/62/EC, 2005/20/EC, and 2013/2/EU (Packaging Waste Directive)
- USA CONEG Regulation / Model Toxics in Packaging Legislation
- California Toxics in Packaging Prevention Act

Toys

This product complies with the requirements of ASTM F963, EN 71-3, EN71-9, EU Directives 2005/84/EC and 2009/48EC.

Phthalates

No phthalates, including di-(2-ethylhexyl) phthalate (DEHP), dibutyl phthalate (DBP), benzyl butyl phthalate (BBP), diisononyl phthalate (DINP), diisodecyl phthalate (DIDP), di-n-octyl phthalate (DNOP), diisobutyl phthalate (DIBP), dimethyl phthalate (DMP), and diethyl phthalate (DEP) are intentionally added to this product. This product therefore meets the requirements of the Consumer Product Safety Improvement Act of 2008 and EU Directive 2005/84/EC.

European Chemicals Agency (ECHA) Substances of Concern

This product does not contain any Substances of Very High Concern (SVHC) as listed on the candidate list published by ECHA as of 16 July 2019. This product does not contain substances restricted under REACH Annex XVII (Restricted Substances List) or subject to authorization under REACH Annex XIV (Authorization List).

Canadian Environmental Protection Act (CEPA) "Challenge" Substances

This product does not contain any high priority chemical substances listed on the "Challenge" Substance Batches as issued by CEPA.

Nanomaterial

This product is not a nanomaterial and does not contain any intentionally added functional nanoparticles.

Conflict Minerals

Neither tantalum, tin, gold, and tungsten, nor the minerals associated with these metals (Columbite-Tantalite, Cassiterite, Gold, or Wolframite) are intentionally added to this product. These substances are not necessary to the production of this product.

Absence of Substances and Chemicals

None of the following substances are used as additives or raw materials in the manufacture of this product:

- Abietic acid
- Acrylamide
- Acrylonitrile or acrylonitrile co-polymers
- Aflatoxin and Mycotoxin; or derivates of these substances
- Alkylphenols
- Alkylphenol Ethoxylates, including nonylphenol ethoxylate and octylphenol ethoxylate
- Allergens, including but not limited to those listed in EU Regulation 1169/2011, Directives 2000/13/EC, 2003/89/EC, and Section B.01.010.1 (1) of Canadian Regulation C.R.C., c. 870 such as: peanuts, tree nuts, milk, eggs, wheat gluten, soybeans, fish and shellfish
- Aromatic amines
- Asbestos
- Azo compounds
- 2,2-Bis(4-hydroxyphenyl)propane bis(2,3-epoxypropyl) ether (BADGE), Bis (hydroxyphenyl)methane bis(2,3-epoxypropyl) ether (BFDGE), and/or Novolac glycidyl ethers (NOGE)

- Biocides
- Bisphenol compounds, including but not limited to: BPA, BPAF BPB, BPC, BPE, BPF, BPH, BPS, and BPZ
- Brominated or halogenated flame retardants
- Butylated Hydroxytoluene (BHT), Butylated Hydroxyanisole (BHA), and Tertiary butylhydroquinone (TBHQ)
- Chlorofluorocarbons (CFC), hydrochlorofluorocarbons (HCFC), hydrofluorocarbons (HFC)
- Chlorinated paraffins, Chlorinated hydrocarbons
- Colorants or pigments
- Cyanuric acid
- Di(ethylhexyl) adipate (DEHA), diethyl hydroxyl amine (DEHA), or di(ethylhexyl)maleate (DEHM)
- Dimethylfumarate (DMF)
- Dioxins or furans; or derivatives of these substances
- Endocrine disruptors
- Epoxy derivatives listed in EU Directives 2002/16/EC and 1895/2005
- Epoxidised Soybean Oil
- FDA Banned Food Additives: benzophenone, ethyl acrylate, eugenyl methyl ether, myrcene, pulegone, pyridine, styrene
- Formaldehyde
- Fungicides or fumigants
- Genetically-modified organisms (GMO)
- Halogens
- Human materials or derivatives of human materials
- Melamine
- Methyl bromide
- Mineral Oil Saturated Hydrocarbons (MOSH) or Mineral Oil Aromatic Hydrocarbons (MOAH)
- Natural rubber latex, dry natural rubber, or synthetic latex
- Nonyl phenol (NP)
- Optical brighteners
- Organotin compounds
- Ozone-depleting chemicals
- Parabens
- Poly- and perfluoroalkyl substances (PFAS), as perfluoroctanoic acid (PFOA) and perfluoroctane sulfonate (PFOS)
- Pesticides and fungicides
- Photoinitiators, including: benzophenone, hydroxybenzophenone, and 4-methylbenzophenone, and Isopropylthioxanthone (ITX)
- Plasticizers
- Polycyclic aromatic hydrocarbons (PAH), also called polyaromatic hydrocarbons
- Polybrominated Diphenyl Ethers (PBDEs) included: decaBDE, octaBDE, and pentaBDE
- Polycarbonates
- Polychlorinated and Polybrominated Biphenyls (PCBs and PBBs)

- Polychlorinated and Polybrominated Terphenyls (PCTs and PBTs)
- Polydimethylsiloxane (PDMS)
- Radioactive Substances
- Recycled materials
- Silicone
- Sulfonamides
- Triclosan (2,4,4'-trichloro-2'-hydroxydiphenylether), Triclocarban
- Tris-Nonylphenol Phosphite (TNPP)
- Vinylidene chloride (Dichloroethene), Vinyl Chloride Monomer (VCM) and Polyvinyl Chloride (PVC) or copolymers

It is the responsibility of the customer to check compliance of the final articles with the relevant legislative and applicable regulatory requirements including their restrictions.

Disclaimer: Before using this product, the user is advised and cautioned to make its own determination and assessment of the safety and suitability of the product for the specific use in question and is further advised against relying on the information contained herein as it may relate to any specific use or application. It is the ultimate responsibility of the user to ensure that the product is suited and the information is applicable to the user's specific application. Chevron Phillips Chemical Company LP does not make, and expressly disclaims, all warranties, including warranties of merchantability or fitness for a particular purpose, regardless of whether oral or written, express or implied, or allegedly arising from any usage of any trade or from any course of dealing in connection with the use of the information contained herein or the product itself. The user expressly assumes all risk and liability, whether based in contract, tort or otherwise, in connection with the use of the information contained herein or the product itself. Further, information contained herein is given without reference to any intellectual property issues, as well as federal, state or local laws which may be encountered in the use thereof. Such questions should be investigated by the user.

Additional information on the health and safety aspects of our product is listed in the SDS of the product.

Address: Chevron Phillips Chemical Company LP, 10001 Six Pines Drive, The Woodlands, TX 77380
Website: http://www.cpchem.com/en-us/ehs/pages/productregulatoryoverviews.aspx

Product Stewardship Summary for Marlex® Polyethylene

This product stewardship summary is intended to provide general information about polyethylene. It is not intended to provide an in-depth discussion of all health and safety information. Additional information on the product is available through the applicable Safety Data Sheet which should be consulted before use of the product. This product stewardship summary does not supplant or replace required regulatory and/or legal communication documents.

Chemical identity:
Polyethylene is a polymer made from ethylene monomer and may contain comonomer and other additives. Currently hexene is used as the comonomer in all copolymer products that are produced by Chevron Phillips Chemical Company LP. Additives can include antioxidants, corrosion inhibitors, antistatic agents, and processing aids, to modify its physical properties.

CAS Number Product Name

9002-88-4	(polyethylene homopolymer)
25213-02-9	(polyethylene-hexene copolymer)

Product Uses:
Polyethylene is a versatile thermoplastic resin which may be converted to a variety of fabricated articles used in containers, pipe, film, geomembrane sheet as well as durable applications in the automotive, appliance, and electronics industries. Film and molded articles may be used in items found in home, retail or industrial settings. Examples include: packaging for laundry, bakery, grocery, frozen foods, and dry and powdered foods. Additional applications can include truck bed-liners, pond-liners, drums, crates, pails, conduit, drainage pipe and gas and water pipe.

Physical/chemical properties:
Polyethylene is a solid thermoplastic polymer at room temperature. At temperatures in excess of 240 °F, it can be melted and extruded into film, sheet, and pipe, or as a coating onto various substrates. It can also be used in injection molding, compression molding, blow molding and rotational molding. Polyethylene has very low flammability. Fine polyethylene dust dispersed in air in sufficient concentrations may form combustible dust and create a potential combustible dust hazard. While this product may not be a combustible dust as sold in pellet form, further processing or handling may form combustible dust concentration in air. Polyethylene is generally unreactive except to strong oxidizing agents. Polyethylene is insoluble in water, making it suitable for packaging food, household cleansers, and aqueous solutions of many types.

Health Information:
Polyethylene is not expected to be acutely toxic by inhalation, oral or dermal routes of exposure. Polyethylene is expected to be essentially non-irritating to the skin and eyes. However, mechanical irritation to the eyes, nose, throat and upper respiratory tract during handling may occur due to polyethylene dust. Fumes generated during thermal processing may cause irritation of the upper respiratory tract. The primary potential health effect is from breathing high concentrations of emissions from polyethylene combustion or thermal processing. Polyethylene is not expected to be toxic to the reproductive system, cause harm to an unborn child, or be genotoxic. There is no evidence that polyethylene can cause cancer in humans or experimental animals.

Environmental Information:
There are no specific environmental hazards associated with polyethylene. Polyethylene does not bioaccumulate. Polyethylene is insoluble and floats on water. Polyethylene is not expected to be readily biodegradable. Fish and birds may eat polyethylene pellets which may obstruct their digestive tracts, and aquatic wildlife may be harmed by ingesting or becoming entangled with discarded plastic products. Exposure of the environment to polyethylene is not expected to cause any other adverse effects.

Exposure Potential:
Workplace use: Workers handling polyethylene resins or products made from these resins may be exposed to polyethylene dusts. Polyethylene dust in the workplace is considered nuisance dust and is regulated as such. Workers involved in the manufacture of products from polyethylene resins using fabrication techniques, which involve elevated temperatures, may be exposed to irritating or toxic thermal degradation products (fumes).

Consumer use: Non-occupational exposure to polyethylene dust is not expected. Potential exposure to the polymer would be primarily from skin contact with products made of polyethylene or ingestion of small pieces of product made from these resins. The negligible solubility and relative inertness of polyethylene, however, result in very low systemic exposure to humans and organisms in the environment. Dermal absorption of polyethylene is expected to be essentially non-existent due to the high molecular weight of the polymer. Dermal absorption of residual ethylene is expected to be extremely low as unreacted monomer in the resins is negligible.

Risk Management:
Chevron Phillips Chemical Company LP is committed to product stewardship and doing business responsibly. We endeavor to provide sufficient information for the safe use and handling of all our products.

With regard to polyethylene, good industrial hygiene practices should always be followed. Avoid dust accumulation on surfaces, and avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Fine polyethylene dust dispersed in air in sufficient concentrations may form combustible dust and create a potential combustible dust hazard. While this product may not be a combustible dust as sold in pellet form, further processing or handling may form combustible dust concentration in air. Avoid prolonged contact of polyethylene dust with eyes and skin. Use of safety glasses with side shields for solids handling is good industrial practice. Avoid prolonged exposure to dusts to protect against mechanical respiratory irritation. Dust masks are recommended when the dust concentration is excessive. Another good safety practice is to avoid spills of polyethylene pellets or remove them from the floors to prevent a potential slipping hazard.

When handling this material, an electrostatic charge may accumulate to create hazardous conditions. To minimize such hazards, proper electrically grounding of material handling and processing equipment may be necessary.

It is important to safeguard against excessive and prolonged exposures to vapors and mists which result from thermal decomposition of polyethylene at very high processing temperatures. High levels of thermal decomposition vapor concentrations may become an irritant. Therefore, adequate local or general exhaust ventilation should be used to prevent the accumulation of high vapor concentrations. If adequate and reliable exhaust ventilation is not available and in the absence of reliable detection and warning devices, National Institute for Occupational Safety and Health (NIOSH) certified organic vapor respirators or supplied air breathing apparatus should be used.

Finally, when handling polyethylene products or products fabricated which contain polyethylene, make sure to consult the relevant product Safety Data Sheet and review applicable regulatory guidelines and requirements, including but not limited to OSHA guidelines.

Regulatory Information:
Regulations exist that govern the manufacture, sale, transportation, use and/or disposal of products of the polyethylene category. These regulations may vary by city, state, country or geographic region. Additional helpful information may be found by consulting the relevant product Safety Data Sheet.

Sources of Additional Information:

- Chevron Phillips Chemical Material Safety Data Sheet Information
  http://www.cpchem.com/en-us/pages/msdssearch.aspx
- Chevron Phillips Chemical Environmental Health & Safety Information
  http://www.cpchem.com/en-us/ehs/Pages/environmenthealthsafety.aspx
- Chevron Phillips Chemical Polyethylene products website
  http://www.cpchem.com/bl/polyethylene/en-us/Pages/default.aspx

- U.S. Environmental Protection Agency (USEPA) Hazardous Substances Data Bank (HSDB) http://toxnet.nlm.nih.gov/
- European Chemical Substances Information System (ESIS) http://esis.jrc.ec.europa.eu/

Conclusion:
Polyethylene is widely used in the production of items found in home, retail or industrial settings. As sold by Chevron Phillips Chemical Company, (in solid pellet form), polyethylene is chemically stable. However, be sure to consult the Safety Data Sheet and other appropriate guidelines (such as Processing Technical Information) prior to use of these polymers.

Contact Information:
http://www.cpchem.com/

Date: February 28, 2017

110017-A White PE MB — Product Information

Physical Properties

Carrier Resin

Type	LLDPE	
Melt Index	20	(nominal) ASTM D1238, 190°C / 2.16 kg
Density	0.92	gm/cc

Masterbatch

Specific Gravity	2.08	(nominal)
Melt Index	7-18	(nominal) ASTM D1238, 190°C / 2.16 kg
Ash	74%	(nominal)

Regulatory Status

Due to the wide range of applications for this product regulatory information cannot be covered adequately in a technical datasheet.
Please contact RegulatoryNorthAmerica@ampacet.com for regulatory information.

Storage - Shelf Life

It is recommended to use this masterbatch within 24 months of the production date.
It should not be stored outside.

Comments

The amount of masterbatch depends on the performance requirements of the final application.
This product is primarily designed for film applications.

Issued: 9 January 2019

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Ampacet
Managing the Elements of Success™

REGULATORY STATUS

110017-A WHITE PE MB

Food Contact Status
This material is composed of ingredients that are cleared by the U.S. Federal Food and Drug Administration (FDA) for use in Polyethylene as described in sections 174.5, 177.1520 (c) 3.1a, 178.2010, and 178.3297 of Title 21 of the Code of Federal Regulations and may be used in food contact applications under conditions of use C-H subject to applicable restrictions as described in Title 21 of the Code of Federal Regulations.

This serves as a continuing guarantee that this product, when leaving our facilities, is unadulterated within the meaning of the Federal Food, Drug and Cosmetic Act and may be used in food contact applications when used in accordance with any restrictions that may be indicated herein or may be applicable to your product.

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Heavy Metals
This product is not intentionally formulated with heavy metals. Residuals that may be detected are expected to be less than 100 PPM total lead, cadmium, hexavalent chromium and mercury.

Animal Derived
This product contains one or more ingredients formulated with animal-derived.

Allergens
This product is not formulated with known allergens, such as: peanuts, tree nuts, refined or unrefined oils, milk or milk products, eggs, wheat (gluten), fish, shellfish, sulfites, food colors or celery.

Latex
This product is not formulated with latex or natural rubber latex.

Endocrine Disrupters
This product is not formulated with known endocrine disruptors.

Ozone Depleting Chemicals
ODC's are not intentionally used in the manufacturing process.

Undesirable Components
This product is not formulated with Organo tin compounds (Mono-, Di-, Tri-, or Tetra- Butyl Tins), Antimicrobials, Asbestos, Fungicides, Pesticides or Sulfur and they are not expected to be present.

In determining acceptability of this product in your intended application, we recommend you consult the Regulations for complete details. Due to possible changes in laws and regulations, customers should verify regulatory status periodically. Contact RegulatoryNorthAmerica@ampacet.com with any questions.

Date: February 2015

Ampacet
Managing the Elements of Success™

REGULATORY STATUS 2019

110017-A

Food contact information

Ampacet **110017-A** masterbatch is composed of ingredients that meet the purity criteria of the following international food contact regulations:

EUROPE: Monomers, starting substances and additives comply with the relevant requirements of:

- Plastics Regulation (EU) n°10/2011 as amended
- Framework Regulation (EC) n°1935/2004

The pigments contained in this masterbatch meet the purity requirements of:

- EC Resolution AP(89)1
- German BfR Empfehlung IX
- French circulaire n°176 of 2.12.1959; French positive list
- Italian "Decreto Ministeriale" of 21.03.1973

Due to the presence of pigments, the general restrictions laid down in Plastics Regulation (EU) n°10/2011 Annex II are to be considered during the assessment of the final article.

Restrictions of use

Specific Migration Limits / Dual use additives	PM ref	Max Content
6mg/kg	68320	100ppm
5mg/kg	Zinc	0.2%
Proprietary package is subject to SML. According to "worst case" calculation, these SML will not be exceeded provided **110017-A** is used at maximum **20%** in a **250µm** thick article. Ampacet is committed to communicate proprietary information to the chosen third party laboratory for testing purpose only.		
E170		25%

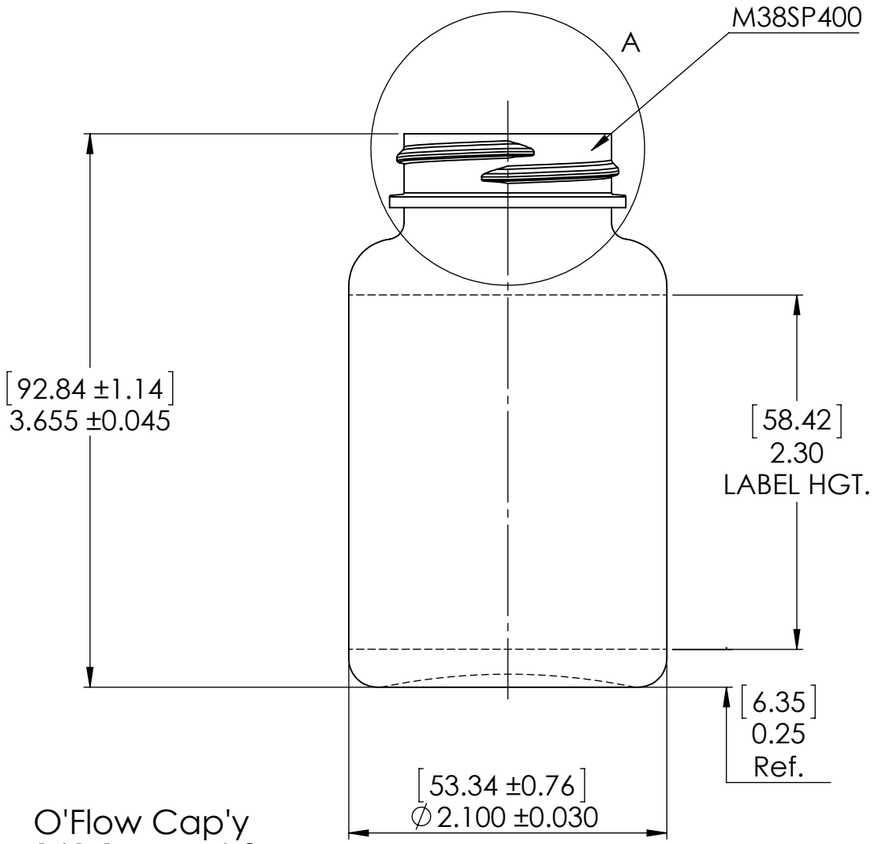
Other prescriptions limit the use of this masterbatch at **20**% in food contact applications.

Ampacet masterbatch **110017-A** has been processed outside of European Union, which means that the registration status with ECHA of the substances used to manufacture this masterbatch has not been specifically reviewed; hence we do not support **110017-A** as part of a REACh compliant use.

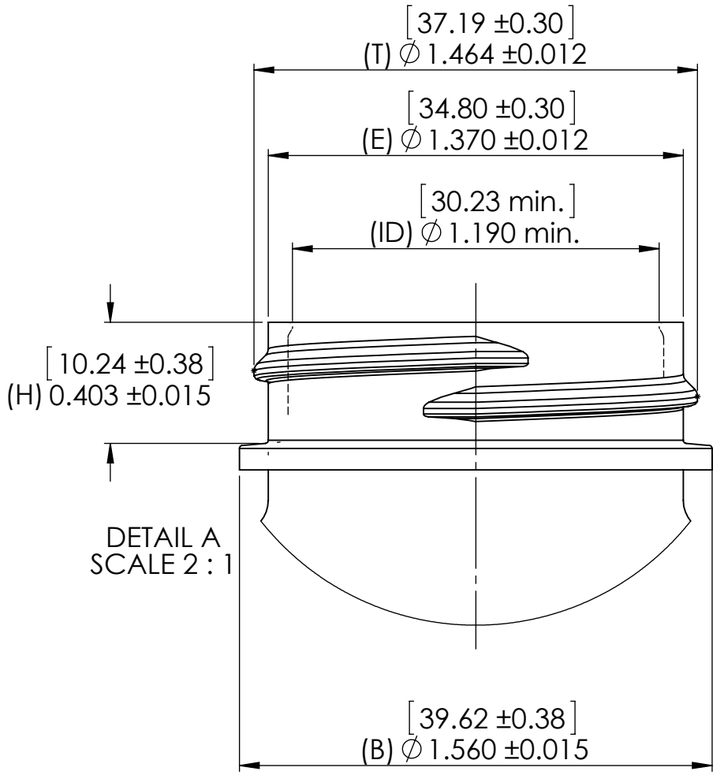
In determining acceptability of this product in your intended application, we recommend you consult the applicable regulations for complete details. It is the responsibility of the manufacturer of the final food contact article to ensure compliance of the article with any applicable requirement. Due to possible changes in laws and regulations, customers should verify regulatory status periodically.

EUROPEAN REGULATORY AFFAIRS
AMPACET EUROPE S.A.

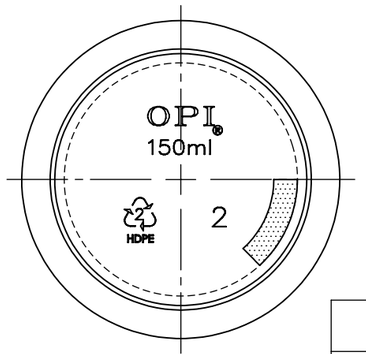
Last revised: 09/2019



O'Flow Cap'y
161.1 cc ± 6.0cc



Thread:
6-T.P.I
0.167 Pitch
1-Turn of Thread



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[ ]=mm

REVISIONS					
Date	Rev	Description	Author	Drawn By	Approved By
10/30/19	2	Updated Label Height Dimension	BV	RS	BK

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Designed by	Mateusz Krupsiński
Approved by	Bruce Klotz
Part name	150 cc Packer Bottle
Project name	150 cc Packer Bottle
Material	H.D. Polyethylene
Drawing number	FM40.150.02.38400.1
REV	2
Scale	1:1
Size	Ledger
Weight	17.5 ± 1.5 Grams
Date	10/30/19

Dimensional tolerances unless otherwise specified		
.00	.000	ANG.
±.025in [±.064mm]	±.015in [±.038mm]	±1 °0'

INF Issued for Information
IFA Issued for Approval
IFC Issued for Construction
IFP Issued for Production