



إيثيدكو
ETHYDCO



THE EGYPTIAN ETHYLENE & DERIVATIVES CO.

الشركة المصرية لإنتاج الإيثيلين ومشتقاته

www.ethydcogroup.com

ETHYDCO Site: 36th km Alex-Cairo Desert Road - El Amria
- El Nahda Territory - Alexandria, EGYPT.



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about ETHYDCO

ADVANCENE™

BY ADVANCED PE TECHNOLOGY



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ETHYDCO OVERVIEW

The Egyptian Ethylene and Derivatives Company (**ETHYDCO**) is an Egyptian joint stock company established on January, 16th, 2011 under Egyptian investment law.

ETHYDCO's petrochemical complex is the largest in Egypt and Africa, implemented with the latest state of art technology to be a leading provider of advanced and high quality products (Linear Low & High Density Polyethylene).

ETHYDCO's attempt to pursue international credibility by acquiring seven ISO certificates.

ETHYDCO is following the Egypt Vision 2030 for in the petrochemical Industry stated by the Egyptian Petroleum Ministry

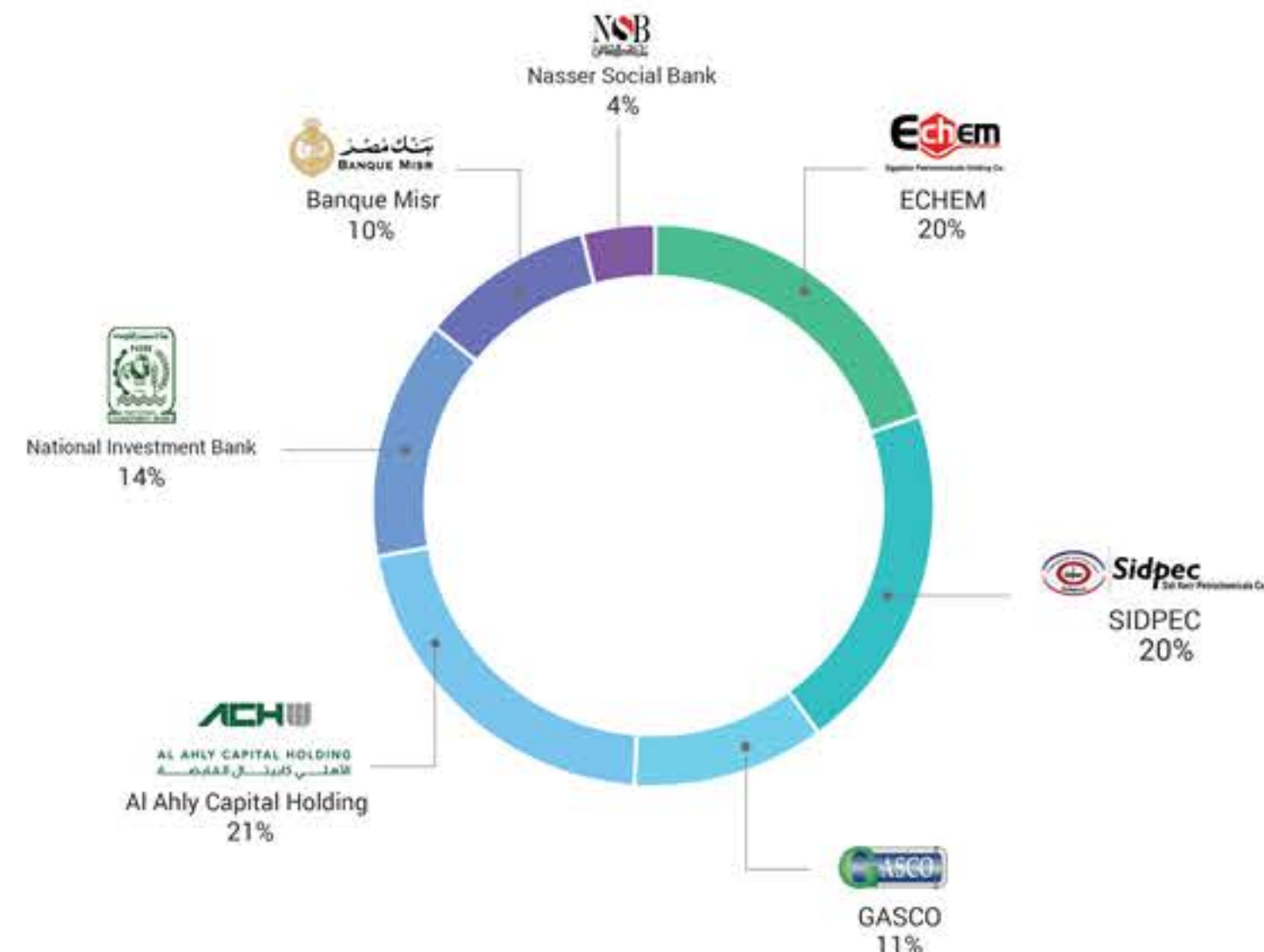
ETHYDCO supports the Sustainability concept by adopting Activities such as:- Best use of resources, Occupational health and safety, Energy conservation, Environment protection and Human development for producing Best Quality Products.

ETHYDCO support the Egyptian vision for 2030, by producing pipe grades for its infrastructure projects.

According to **ETHYDCO** integration policy, **ETHYDCO** will provid near by companies with electricity from third phase of permanent power plant.



ETYHYDCO SHAREHOLDER STRUCTURE



The Egyptian Ethylene And Derivatives Company established on January 16th, 2011 with 100% Egyptian investment as S.A.E.
ETHYDCO Complex TIC US \$ 1.9 Billion.



VISION, MISSION & VALUES

VISION:

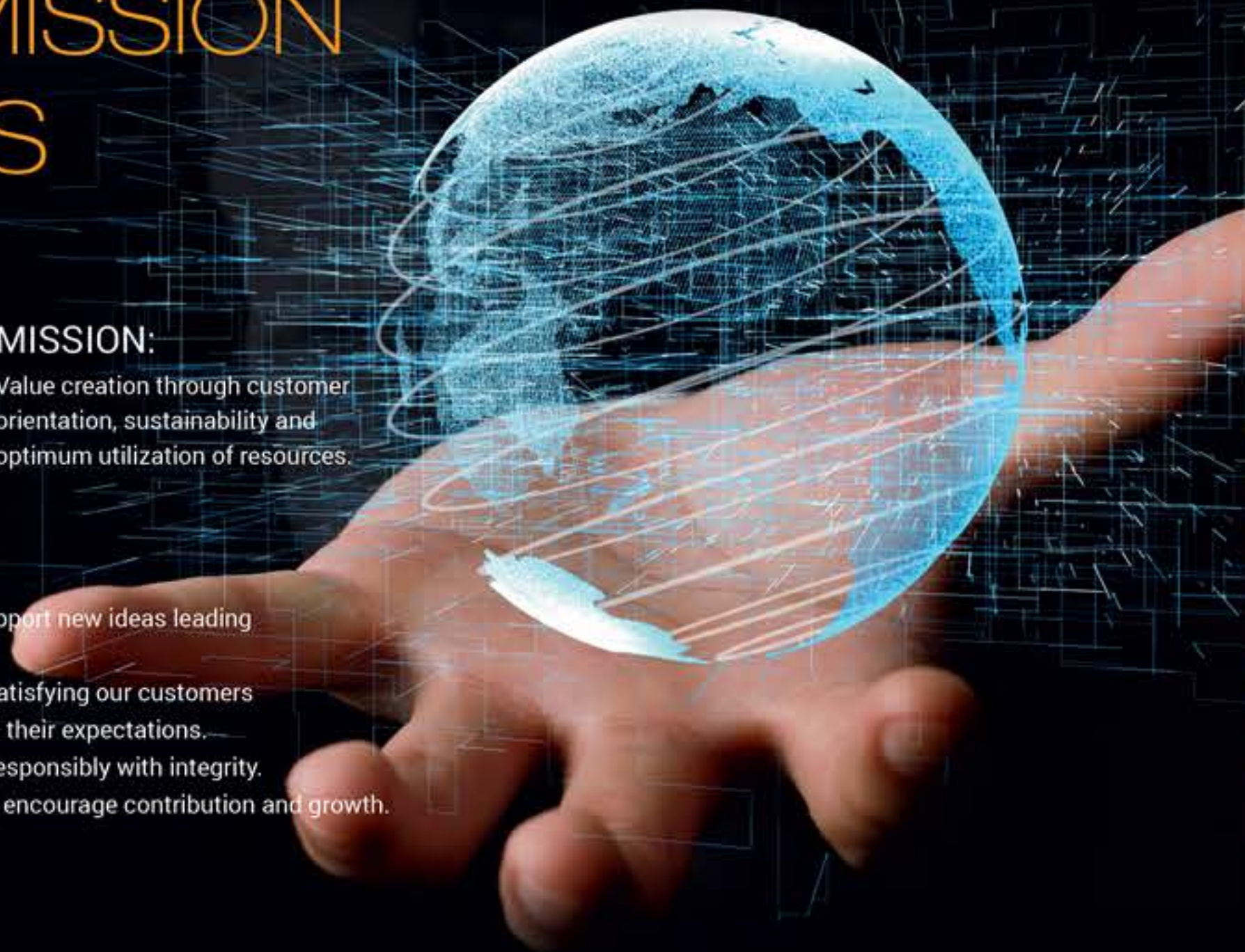
To be the most preferred supplier of Polyethylene, Butadiene and its Derivatives locally and globally.

MISSION:

Value creation through customer orientation, sustainability and optimum utilization of resources.

VALUES:

- Creativity** : We encourage and support new ideas leading to innovation.
- Dedication** : We are dedicated to satisfying our customers and striving to exceed their expectations.
- Integrity** : We act ethically and responsibly with integrity.
- Respectfulness** : We respect every one, encourage contribution and growth.



OUR COMMITMENT TOWARDS SUSTAINABILITY



Responsible Care

ETHYDCO Sustainable development is the fundamental of our business practices and represents a vital aspect in accomplishing development and success, assure consistence with developing market criteria and desires.

ETHYDCO will sustains its growth and assures the improvement of its people
Employee Engagement: Involve employees in sustainability initiatives and provide training to ensure they understand and contribute to the company's environmental goals.

Stakeholder Communication: Communicate your sustainability efforts transparently to customers, shareholders, and the public to build trust and awareness.

Community Engagement: Engage with local communities, support environmental initiatives, and promote environmental education.

Global Compact

The United Nations **Global Compact** is a platform for business and non-business entities to proactively network and engage in areas of human right, labors, environment, anti-corruption, and contributing to UN goals in order to achieve the common objectives of building a sustainable and inclusive global economy.

Research and Development: Invest in research and development to find innovative ways to reduce the environmental impact of polyethylene production.

Biodiversity Conservation: Consider the impact on local ecosystems and implement measures to protect biodiversity.

Recycling Program

As part of our endured commitment to sustainability and the development of a circular economy, EthydcO started making conscious efforts.

These initiatives are in line with the most recent revisions to our company strategy, which have sharpened our focus on advancing and exploring the opportunities offered by a circular economy.

Recycling Programs: Establish recycling programs for generated waste to reduce landfill waste and promote a circular economy.

Circular Economy: Explore opportunities for a circular economy, where products are designed for reuse, recycling, or remanufacturing.





ETHYDCO attempt to pursue international credibility by acquiring & complying with ISO certificates , integrated management system has assessed & certified by fulfilling the ISO requirements for seven iso certificates.



ISO 9001:2015
 ISO 14001:2015
 ISO 45001:2018
 ISO 50001:2018
 ISO 17025:2017
 ISO 37001:2016
 ISO 27001:2013



PRODUCTION PLANTS

- 1 Ethylene & Butadiene Plant**
 Licensor : Lummus - USA
 Ethylene
 Capacity : 460 KTA
 EPC Contractor : Toyo - Japan
 Butadiene
 Capacity : 20 KTA
 EPC Contractor : Toyo - Japan



- 2 Polyethylene Plant**
 Capacity : 400 KTA (2x200 KTA)
 Licensor : Univation - USA
 EPC Contractor : Toyo - Japan



- 3 Butadiene Derivatives Plant**
 Capacity : 36 KTA
 Licensor : Versalis - Italy



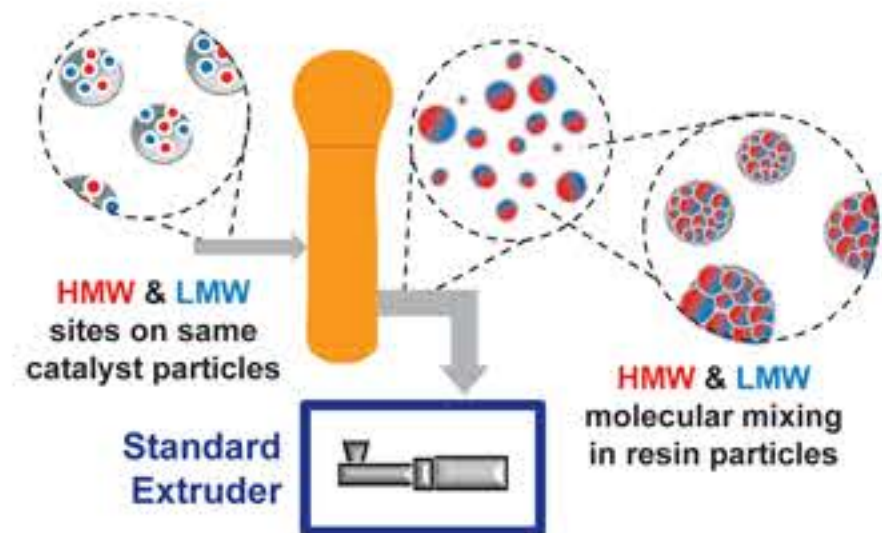
- 4 Utility Plant**
 EPC Contractor : ENPPI - Egypt



TECHNOLOGY

ETHYDCO manufactures Polyethylene using UNIPOL™ gas phase process wherein ethylene and comonomer react as gases at low pressure, in presence of catalyst using fluidized bed conditions to produce granular products.

The UNIPOL™ PE Process can produce a wide range of commercial products. Whether your goal is to make high-density, medium-density or linear low-density PE, the UNIPOL™ PE Process can accommodate its wide range of densities and melt indices – with both narrow and broad molecular weight distributions, swing and Bimodal capabilities are the key to resin differentiation.



PRODIGY™ Bimodal Catalyst Benefits :

- High production rates.
- Outstanding reactor continuity and robustness.
- Improved resin homogeneity vs. dual reactor for power savings during extrusion.

ADVANCENE™
BY ADVANCED PE TECHNOLOGY

BRAND NAME
(ADVANCENE)

ADVANCENE™
Advanced
(Polyethylene and Polybutadiene)



- Advanced product quality offers optimal balance between good processability /extrudability and mechanical performance
- Advanced technology with Bimodal and swing capabilities.
- Advanced service offering through ETHYDCO experienced team.
- Consistent with ETHYDCO Mission (value creations through customer orientation, sustainability and optimum utilization of resources).
- Suffix consistent with ETHYDCO Products (Polyethylene and Polybutadiene).

*Value Creating Plastic
& Rubber Products*



POLYETHYLENE PRODUCTS

1 MD/HDPE Film

2 LLDPE Film


3 Blow Moulding

4 Pipe Extrusion

5 Injection Moulding

6 Roto Moulding

7 Tape & Monofilament

8 Recycled Pellets 

PRODUCT MIX

TRAIN #1

Product Category	Product	Melt Index Range (g/10 min) I ₂	Density Range g / ccm	Co-monomer	MWD	Applications
LLDPE Film - Butene	EE-1801-AAB	0.8 : 1.2	0.916 : 0.920	C4	Narrow	Heavy duty bags, liners, blends
	EE-1801-BSB	0.8 : 1.2	0.918 : 0.922	C4	Narrow	Heavy duty bags, liners, blends (with slip & anti-block additives)
	EE-1802-AAB	1.8 : 2.2	0.916 : 0.920	C4	Narrow	Light duty bags, liners, blends
	EE-1802-BSB	1.8 : 2.2	0.918 : 0.922	C4	Narrow	Light duty bags, liners, blends (with slip & anti-block additives)
LLDPE Film - Hexene	EE-1801-AAH	0.8 : 1.2	0.916 : 0.920	C6	Narrow	Heavy duty bags, liners, blends
	EE-1802-AAH	1.8 : 2.2	0.916 : 0.920	C6	Narrow	Cast Film applications, Light duty bags, liners, blends
HDPE Injection Molding	EM-5204-UVH	4.3 : 5.5	0.950 : 0.954	C6	Narrow	Pails, Industrial Containers (UV stabilized)
	EM-6308-UV	7 : 9	0.960 : 0.966	Homo-polymer	Narrow	Crates, bins, Pallets (UV stabilized)
MDPE RotoMolding	EM-3405-UVH	4 : 6	0.934 : 0.938	C6	Narrow	General Purpose Rotomolding applications, Tanks, Containers, (UV stabilized)
HDPE Monofilament	EE-5001-AAH	0.8 : 1.2	0.948 : 0.952	C6	Narrow	Fishnets, ropes, woven nets

TRAIN #2

Product Category	Product	Melt Index Range (g/10 min) I ₂	Density Range g / ccm	Co-monomer	MWD	Applications
MDPE Film	EE-3914-AAH	12 : 16	0.937 : 0.941	C6	Broad	Geomembrane, Industrial liners, Mailer bags, Notion bags, Blends
HDPE Film	EE-4811-AAH	8 : 13	0.946 : 0.950	C6	Broad	High strength film, Grocery bags, Multiwall bag liner, Heavy duty bags
HDPE Blow - Molding	EM-5333-AAH	28 : 36	0.951 : 0.955	C6	Medium	HIC Bottles (Small Bottles > 4 Liters)
	EM-4925-AAH	20 : 30	0.949 : 0.953	C6	Medium	Medium blow molded containers and parts (4-20 Liters)
	EM-4810-AAH	7 : 11	0.946 : 0.950	C6	Broad	Large Part Blow Molding (20-212 Liters)
MDPE Pipe - Unimodal	EE-3916-AAH	14 : 18	0.937 : 0.941	C6	Broad	PE-80 pipe (Natural), Municipal natural gas distribution pipe
HDPE Pipe - Bimodal	bEE-4906-AAH	0.15 : 0.19 5 : 7	0.946 : 0.950	C6	Bimodal	Bimodal HDPE PE-100 pipe (Natural)

1 MD/HDPE FILM

ETHYDCO ADVANCENE MD/HDPE Film products are suitable for many applications.

ADVANTAGES:

ETHYDCO ADVANCENE MD/HDPE film products offer an optimum combination of high molecular weight, broad molecular weight distribution and density resulting in a product with excellent process-ability & film properties that offer thin films at high extrusion rates.

MAJOR APPLICATIONS:

- Retail bags that includes grocery/ T-shirt bags and merchandise bags.
- Within food packaging, bags and snack foods.
- Within non-food packaging, industrial liner and protective film.
- Trash bags, can liners and non-packaging film.
- Greenhouse film.
- Geo membran application.



2 LLDPE FILM

ETHYDCO ADVANCENE C4/C6 LLDPE LLDPE grades can be blended with LDPE in a wide range of blending ratio's to make many diverse PE films ranging from very thin films to much thicker heavy duty bags.

ADVANTAGES:

- ETHYDCO PE Process offers a full range of LLDPE products for blown and slot cast film.
- ETHYDCO PE butene copolymer LLDPE films exhibit mechanical properties that are equal or better than films produced from other competitors.
- ETHYDCO hexene copolymer LLDPE film exhibit Higher Toughness, Dart Impact Strength & Tear Strength than film produced from butene copolymer LLDPE

MAJOR APPLICATIONS:

- General merchandise bags & liner application.
- Heavy duty liners/ bags (blown film).
- Stretch Film.
- Frozen Food Film.
- Greenhouse film.

3 BLOW MOULDING

ETHYDCO ADVANCENE HDPE Blow Molding products are suitable for many applications including: 1) House industrial and Chemicals(HIC) bottles, 2) Medium size, containers with high ESCR, 3) Large parts (eg. drums, automobile parts, containers)

ADVANTAGES:

- Excellent balance of parison stability, Good trimming characteristics. ESCR, impact strength, and stiffness.
- Excellent wall thickness distribution.
- Rapid molding cycles.
- Melt fracture free, smooth surfaces.
- Excellent pigment dispersion, superior color.
- Lowest taste and odor transfer in the industry.

MAJOR APPLICATIONS:

- Household and Industrial Chemicals Bottles (HIC): Detergent, Automotive, marine supplies, Antifreeze, Motor oils, Agricultural chemicals, Pesticides and herbicides.
- Food Containers: Edible cooking oils, Beverages and Liquid food Containers.
- Health Care Personal care, Cosmetics and Injection blow-molded containers.
- Industrial and Household Parts: Garbage containers, Tool boxes, Furniture parts, Toys, Ice chests and coolers...etc.



4 PIPE EXTRUSION

ETHYDCO utilizes advanced catalyst to produce unimodal MDPE and bimodal HDPE pipe products suitable for many applications; these applications meet PE-80 & PE-100 standards.

ADVANTAGES:

- Bimodal HDPE pipe resin offers:
 - Long Term Hydrostatic Strength (LTHS).
 - Slow Crack Growth (SCG) resistance.
 - Rapid Crack Propagation (RCP) resistance.
- Excellent extrusion characteristics.
- Broad MWD to make excellent HDPE pipes.

MAJOR APPLICATIONS:

- Pressure Pipe for potable water & natural gas distribution.
- Large diameter pressure pipe applications.
- Applications that require the pipe to meet PE-100 standards.



5 INJECTION MOULDING

ETHYDCO ADVANCENE HDPE injection molding products are suitable for many applications. Hexene copolymer shall be available which are superior to competitive grades.

ADVANTAGES:

- Narrow MWD for superior low temperature properties and low warpage characteristics.
- High stiffness combined with appropriate levels of toughness and ESCR.
- Capability to produce differentiated high MI resins for the thin-wall container market segment:
 - Fast molding cycle times.
 - Thin wall capability.

MAJOR APPLICATIONS:

- Open head pails.
- Industrial storage trays.
- Thin walled containers.
- Beverage cases.
- Structural foam parts.
- Caps & Closures in applications.



6 ROTO MOULDING

ETHYDCO ADVANCENE MDPE rotational moulding grade range is used for the manufacture of water tanks (slim line to large agricultural tanks), marine floats, traffic barriers, canoes, small boats, and almost any hollow, enclosed or open ended shape. Designed to deliver an excellent balance of properties for rotomoulding applications.

ADVANTAGES:

- Improved Molding Cycles.
- Improved impact strength.
- Improved ESCR.
- Low grinding costs.
- Competes with extrusion blow molding for large parts where parison melt strength is insufficient, i.e. 2000 liter tank.
- Competes with injection molding (IM) where part complexity prevents IM molding.

MAJOR APPLICATIONS:

- Toys.
- Shipping Containers.
- Industrial Chemical Holding Tanks.
- Kayaks.
- Agricultural Tanks.
- Canoes.



7 TAPE & MONOFILAMENT

Tape and Monofilament applications require a polyethylene resin capable of processing at high speed, and withstanding high stresses in service environments. ETHYDCO offers a low gel resin suitable for a variety of challenging extrusion applications.

ADVANTAGES:

- Excellent thermal stability.
- Relatively low die swell.
- High tensile strength.
- Tensile Elongation (20-40%).

MAJOR APPLICATIONS:

- Ropes for various uses.
- Mosquito mesh.
- Bristles for brushes, brooms.
- Ribbons, tapes.



8 RECYCLED PELLETS

ETHYDCO Recycled Polyethylene pellets is produced from post industrial polyethylene scrape to satisfy the needs for customers Looking for eco-friendly materials. Our commitment to environmental responsibility drives our continuous innovation in the field of recycled plastics.

ADVANTAGES:

- Reduction in Plastic Waste.
- Natural Resources Conservation.
- Energy Savings by reducing carbon footprint.
- Regulatory Compliance according to International Regulations.
- Achieve the SDG'S (Goal 12,13,14 & 15).
- Circular Economy.

MAJOR APPLICATIONS:

- Packaging Sector such as plastic film and containers.
- Agricultural Sector such as irrigation pipes, mulch films, and greenhouse coverings.
- Landscaping and Garden Products such as landscape edging, garden containers, and outdoor decking materials.





Responsible Care

ETHYDCO, in November 2014, signed the declaration of support to responsible care global charter committed to the continued support of the Responsible Care® principles and to working in conjunction with Environmental Compliance and Sustainable development office / Federation of Egyptian Industries.



Global Compact

ETHYDCO, in September 2014, joined the United Nations Global Compact (UNGC) by the acceptance of the Secretary-General of the United Nations and that shall allow ETHYDCO to prove its efforts locally and globally to support the human rights principles, Labor standards, Environment and Anti-corruption.



Food Contact Approval

ADVANCENE polyethylene products have Food Contact Plastics Certificate of Conformity with the Requirements of:
• USA FDA Code of Federal Regulations (CFR21) Section 177.1520 (Olefin Polymers)
• EU Regulation 10/2011, as amended by EU Regulations 321/2011, 1282/2011, 1183/2012, 202/2014, 174/2015, 1416/2016, 752/2017, 79/2018 and 213/2018



L'ORÉAL

L'ORÉAL approved ETHYDCO's ADVANCENE Blow Molding grade "EM-5333-AAH" globally for all shampoo and conditioner ranges after passing all L'ORÉAL tests including dimensions, leakage, weight, stress cracking and material distribution.



Pipe Pressure Tests (PE80):

SKZ - Testing GmbH certify and confirm that ETHYDCO material ADVANCENE "EE-3916-AAH" can be designated as PE-80 according to DIN EN ISO 12162:2010-04 and DIN EN ISO 9080:2013-02.



REACH

ADVANCENE polyethylene products comply with Article 8 of Regulation (EC) No. 1907/2006 (REACH).



NSF

Advancene EM-3405-UVH comply with NSF/ANSI/CAN 61 and all applicable requirements, Drinking system components and Health Effects.



CS ANALYTICAL:

Advancene EM-4925-AAH & EE-1801-AAB complies with EP 3.1.5 (European Pharmacopeia) for containers and packaging system for medical drug products.

ETHYDCO CERTIFICATES & APPROVALS



ETHYDCO GLOBAL



Scan to know more about Distributors



BUTADIENE PRODUCT

Butadiene is used primarily as a monomer for manufacturing synthetic rubber and plastics. Smaller amounts are used as a monomer intermediate for producing other polymers such as SBR. A mixture of C3s and heavier components is fed to Butadiene Extraction Plant and 1,3 Butadiene is extracted using BASF NMP Process. BASF NMP Process defines state-of-the-art technology for recovery of high purity butadiene. Our license is internationally qualified and approved, upholding safety standards and hazard elimination. Butadiene Plant had been started successfully during 2016 with plant design capacity 20,000 Ton / year.



ELECTRIC POWER STATION

ETHYDCO owns power supply up to 70 MW using simple cycle gas turbines to guarantee a stable and reliable electric power supply comply with all environmental laws and regulations. Power generated can be connected to the national grid as a back-up supply and facility to export energy.





POLYETHYLENE PLANT



THE EGYPTIAN ETHYLENE
& DERIVATIVES CO.
الشركة المصرية لإنتاج الإيثيلين ومشتقاته



إيثيدكو
ETHYDCO



THE EGYPTIAN ETHYLENE & DERIVATIVES CO.

الشركة المصرية لإنتاج الإيثاين ومشتقاته

www.ethydco-eg.com

الموقع : الكيلو ٣٦ طريق اسكندرية / القاهرة الصحراوي
- منطقة النهضة - العامرية - الاسكندرية - مصر



ADVANCENE™
BY ADVANCED PE TECHNOLOGY



Scan to know more
about ETHYDCO

المحتويات

٢ نبذة عامة
٣ المساهمون
٤ الرؤية والمهمة والقيم
٥ المشروعات الإنتاجية
٦ منتجات الشركة



نبذة عامة

الشركة المصرية لإنتاج الإيثيلين ومشتقاته (إيثيدكو) هي شركة مساهمة مصرية، تأسست في ١٦ يناير ٢٠١١ طبقاً لقانون الاستثمار في إطار تنفيذ الخطة القومية للبتروكيماويات وتغطية الاحتياجات الحالية والمستقبلية للسوق المحلي وخطط التصدير للخارج.

مجمع إيثيدكو للبتروكيماويات هو الأكبر في مصر وأفريقيا ويمتلك أحدث تكنولوجيا ليكون رائداً في مجال توفير منتجات عالية الجودة (بولي إيثيلين عالي الكثافة ومنخفض الكثافة الخطي).

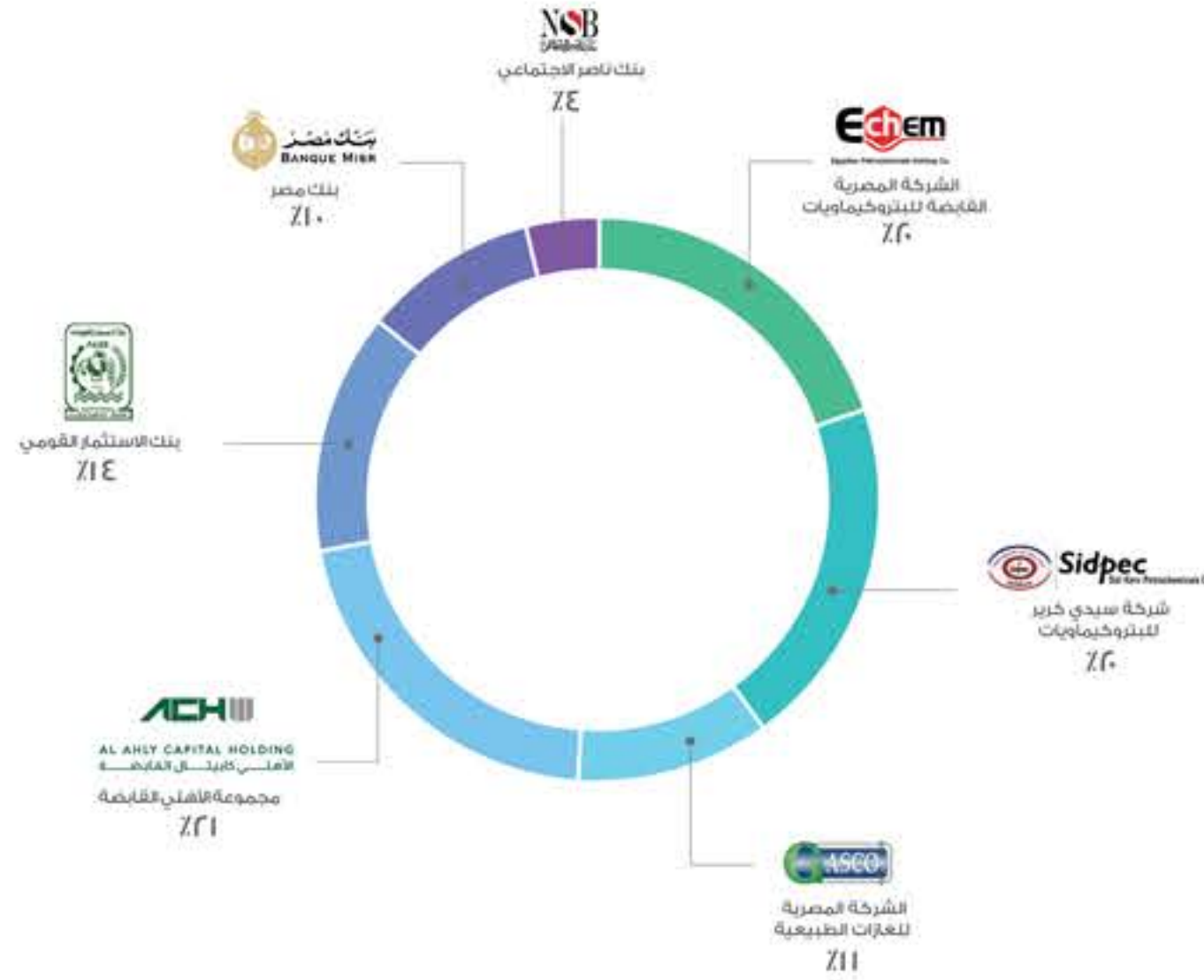
انطلاقاً من سعي شركة إيثيدكو الدائم لرفع مصداقيتها الدولية، حصلت الشركة على سبع شهادات أيزو عالمية.

تدعم إيثيدكو رؤية مصر ٢٠٣٠ بتوفير خامات المواسير اللازمة لمشروعات البنية التحتية.

تماشياً مع سياسة التكامل لدى الشركة، سوف توفر إيثيدكو الكهرباء اللازمة للشركات المحيطة بها من خلال محطة كهرباء إيثيدكو.

المساهمون

تأسست الشركة المصرية لإنتاج الإيثيلين ومشتقاته كشركة مساهمة مصرية باستثمارات مصرية ٧١٠٠.



المشروعات الإنتاجية

1 مشروع إنتاج الإيثيلين والبيوتاديين صاحب الرخصة، شركة Lummus الأمريكية

الإيثيلين الطاقة الإنتاجية: ٤٦٠ ألف طن/سنة المقاول العام، شركة Toyo اليابانية

البيوتاديين الطاقة الإنتاجية: ٢٠ ألف طن/سنة المقاول العام، شركة Toyo اليابانية



2 مشروع إنتاج البولي إيثيلين صاحب الرخصة، شركة Univation الأمريكية الطاقة الإنتاجية: ٤٠٠ ألف طن/سنة (خطي إنتاج) ٢٠٠x٢ ألف طن/سنة المقاول العام، شركة Toyo اليابانية



3 مشروع مشتقات البيوتاديين صاحب الرخصة، شركة Versalis الإيطالية الطاقة الإنتاجية: ٣٦ ألف طن/سنة



4 مشروع المرافق المقاول العام، الشركة الهندسية للصناعات البترولية والكيمياوية (إنبي)



الرؤية والمهمة والقيم

الرؤية :

أن نكون المنتج المفضل للبولي إيثيلين ومشتقات البيوتاديين محلياً وعالمياً.

المهمة :

تحقيق أفضل قيمة من خلال التركيز على احتياجات العملاء والتنمية المستدامة والاستغلال الأمثل للموارد.

القيم :

الإبداع والابتكار : نحن نشجع وندعم الأفكار الجديدة التي تؤدي إلى الابتكار.

التفاني والإخلاص : نكرس كل جهودنا من أجل إرضاء العملاء، ونسعى دائماً لتخطي توقعاتهم.

النزاهة : نلتزم بالمحافظة على أعلى المعايير الأخلاقية والسلوكية كمعيار حيوي للأمانة والنزاهة.

الإحترام والنمو : نحن نحترم الجميع، ونشجع المساهمة والنمو.

ADVANCENE™
BY ADVANCED PE TECHNOLOGY

أدقانسين هو الاسم التجاري لمنتجات شركة إيثيدكو



منتجات الشركة

المنتجات النهائية المصنعة من خامات إيثيدكو
البولي إيثيلين عالي الكثافة ومنخفض الكثافة الخطي



إعادة التدوير لخام البولي إيثيلين
في إطار حرص الشركة علي المساهمة في الحفاظ علي البيئة