



**PROPEL**

100% TRUST. 100% VALUE.  
A range of world-class petrochemicals



# INDIANOIL : SCRIPTING SUCCESS STORIES IN PETROCHEMICALS







## IndianOil at a Glance

IndianOil is India's largest commercial enterprise in 117<sup>th</sup> ranked Indian corporate in *Fortune's* 'Global 500' listing. With a dedicated 33,000 plus workforce, widespread infrastructure, breakthrough technologies and advanced R&D facilities, IndianOil plays a significant role in fuelling the energy needs of the country.

With a turnover of ₹ 6,05,924 crore and a net profit of ₹ 16,894 crore in 2018-19, as on 31<sup>st</sup> March 2018, IndianOil is recognized as one of India's most valuable companies. The Company continues to be the largest contributor to the national exchequer in the form of duties and taxes.

IndianOil's core business is refining, transportation and marketing of petroleum products. Over the years, the Corporation has expanded its operations across the hydrocarbon value chain – upstream into oil & gas exploration & production and downstream into petrochemicals, besides diversifying into natural gas and alternative

energy resources.

IndianOil continues to expand its business operations abroad through its overseas establishments in Sri Lanka, Mauritius, Singapore, UAE and USA, and has set up offices in Myanmar and Bangladesh .

IndianOil is committed to creating positive life experiences for its customers through its portfolio of products & services, boosting energy access across socio-economic divides; enhancing energy efficiency in production, refining, transportation, marketing & consumption; and adding to energy sustainability through promotion of green fuels. Guided by its vision to be '*A Globally Admired Company*', IndianOil aims to create value by solving the issues being faced by people, society and our Planet Earth through the power of technology.

Visit [www.iocl.com](http://www.iocl.com) to know more.



# Presenting *PROPEL* The IndianOil promise

IndianOil's corporate philosophy rests on enhancing the quality of life of people, society and its stakeholders while sustaining the Earth. We pursue business sustainability.

The brand name *PROPEL* implies propulsion or impetus with promise of growth to our customers' business. It denotes **100% trust, 100% value**. It is backed by the promise of quality and commitment that IndianOil puts into its business. Customers stand to benefit from IndianOil's experience & expertise in the petroleum and petrochemicals businesses besides a pan-India service delivery network.

Under the umbrella brand *PROPEL*, IndianOil offers a full range of products covering all segments of petrochemicals, viz., Linear Alkyl Benzene (LAB), Purified Terephthalic Acid (PTA), Paraxylene (PX), Mono Ethylene Glycol (MEG), Polypropylene (PP), Linear Low Density Polyethylene (LLDPE), High Density Polyethylene (HDPE), etc. for a wide range of applications across industrial, commercial and domestic segments - thus making *PROPEL* a household name.



**Packaging, Labels, Films:** Providing packaging solutions for liquids, oil, confectionery, grooming, healthcare, food. Helping extend product life and shelf life of food and medical products



**Consumer Electronics:** Advanced moulding & composites - contributing to a better quality of life

## *PROPEL* Providing comprehensive solutions, creating value

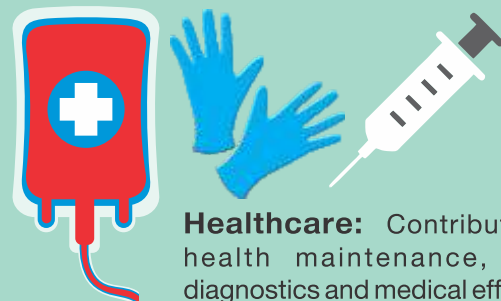
IndianOil is committed to creating positive life experiences for its customers through its portfolio of products & services. *PROPEL* brand of petrochemicals covers over 80% of all conceivable applications of plastics. Our solutions and focus areas are:



**Automobiles:** Advanced moulding & composites for doing our bit for the environment through enhancing fuel efficiency by reducing vehicle weight while contributing towards a more mobile society



**Agriculture & Infrastructure:** Environment & Living solutions for improving production & efficiency in agricultural, fishery and infrastructure industries while contributing to resource & energy conservation



**Healthcare:** Contributing to health maintenance, better diagnostics and medical efficiency

# Cutting-edge Research & Development

IndianOil has expanded its technology platforms, integrated its various core technologies and accelerated the development of new technologies in the emerging fields. Leveraging close collaboration among its Divisions, it is able to respond swiftly to market changes. Resting on the cornerstones of **Sustainability, Health and Comfort**, IndianOil's research and product application effort aims to bring out differentiated solutions with clear value propositions in a competitive landscape.



## R&D Centre @Faridabad

IndianOil's sprawling R&D Centre in Faridabad near the National Capital, is one of Asia's finest. It holds over 800 active patents and has won recognition for over four decades of pioneering work in lubricants formulation, refinery processes, petrochemical, and polymer (development of catalysts, niche grades, additives etc.), pipeline transportation, nanotechnology, alternative fuels, biotechnology etc. More than 82 patents filed in petrochemical area in less than 5 year time.

Its Petrochemicals & Polymers vertical conducts research in polyolefin catalyst, drag reducing agents, new grade development & post reactor modification, additives, troubleshooting & developing packaging materials, mainly polymeric, and benchmarking besides rendering technical support in customer trials to enhance product quality & reduce production costs.

An emerging Centre of Excellence in Ziegler-Natta Catalysis in polymer research, IndianOil R&D has helped standardize its polymer grades and produced new products / grades based on market requirements. It leverages the core technologies of general chemistry such as material design, synthesis and analysis technologies for developments that meet the latest needs as well as those of future technologies.



# Product Application Development Centre at @Panipat and Paradip

The state-of-art Product Application Development Centre (PADC) promotes commercial application and customer-oriented development of niche grades and new applications, quality monitoring, technical support to customers for product development and polymer processing optimizations. As an interface between the Company's polymer plants, its marketing set-up and end-use customers, PADC develops new applications, formulations and grades that are in sync with market needs. PADC Panipat is recognized by the Department of Scientific and Industrial Research (DSIR), Ministry of Science & Technology, Govt. of India.



# Industrial Materials

## Petrochemicals

IndianOil produces olefins such as ethylene and propylene, and aromatics such as paraxylene, benzene and toluene. Our polyolefins (polyethylene and polypropylene) offer high quality performance products suitable for various industries such as automobiles, electrical wires, medical devices and food packaging.



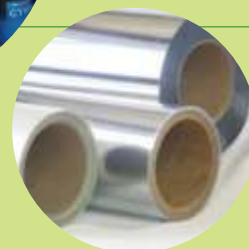
## Carbon

IndianOil produces Petcoke, Carbon Black Feedstock (CBFS) and Synthetic Rubber to support industries engaged in production of tyres, printing inks, plastic colourants, etc.



## Optical Films

IndianOil also produces PTA and MEG which are used in production of optical films such as bi-axial oriented polyester film featuring well-balanced characteristics to improve the visibility of touch panels.



## Food Packaging, Industrial & Medical Films

IndianOil has the capability to tweak characteristics and produce grades with added functionalities for speciality food & medical packaging, electronic parts, automobiles and building materials.



## Fibres & Textiles

With a world-class PX/PTA plant producing polyester intermediates, *PROPEL* grades can be used for a wide range of applications including activewear, interiors and industrial applications.



## PP Composites and Functional mouldings

Our grades can be used to produce a variety of products such as aluminium composite materials, plastic film-laminated steel sheets, building materials, partitions, sports good, industrial use plates, etc.



## Agribusiness & Infrastructure solutions

*PROPEL* grades are suitable for use in producing agricultural materials such as drip laterals for irrigation pipes for submersible pumps, agri-nets for plant growing systems, etc. Contributing to a sustainable society, IndianOil petrochemicals can be used to produce piping materials, logistics materials & adhesive tapes, cable ducting, repair & reinforcement materials for roads & ridges, artificial turfs for boosting sports infrastructure, etc.





# Major Production Bases

IndianOil's efforts in manufacturing innovation stem from its world-scale plants, world-class technologies, focus on safety, environmental conservation, high-quality products and high-efficiency production.

IndianOil is one of the largest players in the domestic petrochemicals market, besides exports to 75 countries. The Corporation offers a full slate of petrochemical products and intermediates under the brand name *PROPEL*.

## Plants / Products

### Linear Alkyl Benzene (LAB) plant @Koyali, Gujarat

- Among the world's largest single-train LAB plants, capacity: 120 TMT per annum
- Used in the production of detergents
- Based on the latest UOP's DETAL technology

### Paraxylene/ Purified Terephthalic Acid (PX/PTA) plant @Panipat, Haryana

- PTA plant capacity : 553 TMT/PA
- Produces polyester intermediates
- Based on Invista technology
- PX plant based on UOP technology, capacity: 360 TMT/PA

### Polypropylene Unit @Panipat, Haryana

- Two line with capacity of 300 TMT/PA each
- Based on the Spheripol-II technology M/s LyondellBasell
- Produces Homo-polymers, Block Copolymers, Random and impact Copolymers
- Can produce grades with MFI in the range of 0.3 to 100 g/10 min.

### Dedicated High Density Polyethylene unit @Panipat, Haryana

- Plant capacity of 300 TMT/PA
- Based on slurry process technology (Hostalen) from M/s LyondellBasell
- Can produce unimodal as well as Bi-modal high molecular weight grades.
- MFI ranges from 0.1 to 52 and density 0.940 to 0.965





### **LLDPE / HDPE Swing unit @Panipat, Haryana**

- Capacity of 350 TMTPA
- Based on solution process technology (Sclairtech) from M/s Nova Chemicals
- Plant can produce both LLDPE and HDPE grades.
- MFI range from 0.3 to 55 and density range from 0.917 to 0.965

### **Ethylene Glycol plant @Panipat, Haryana**

- Total capacity of 325 KTA
- MEG: 302 KTA, DEG: 22 KTA and TEG: 1 KTA
- Based on technology from Scientific Design, USA

The Naphtha cracker complex also produces by-products such as Benzene, Carbon Black Feed Stock (CBFS), Polyethylene Wax (PE wax), Diethylene Glycol (DEG) and Triethylene Glycol (TEG).

### **Styrene Butadiene Rubber (SBR) plant @Panipat, Haryana**

- First in India
- Capacity: 120 TMTPA
- Implemented as a joint venture with TSRC, Taiwan, and Marubeni Corporation, Japan, as JV partners.

### **Polypropylene plant @Paradip, Odisha**

- Capacity: 680 TMTPA
- Based on Spheripol-II Technology from Lyondellbasell.
- Produces homopolymers.

# Global Footprint of *PROPEL*



● POLYMERS \* DEG/TEG + LAB ● BENZENE

(Map not to scale)



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For more information, please visit:  
[www.iocl.com](http://www.iocl.com) | <https://propel.indianoil.in>

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