

## **Plastics have a role to play in a circular and sustainable future**

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### **Present Status of OQ**

OQ (formerly known as Oman Oil and Orpic Group) is an integrated energy company that delivers sustainability and business excellence. Polymers and Oxo will be key areas for OQ in terms of innovation, investment and growth.

OQ brand name was launched in December 2019, after Oman Oil and Orpic Group unveiled the culmination of a year of integrating core. The new brand identity brings all of these assets together as a singular provider of energy and petrochemicals excellence that touches the lives of millions of people across the world with its products.

Headquartered in Muscat, but with operations throughout the Middle East region and beyond, we are perfectly located to serve our MENA and Indian sub-continent customers, with a broadening portfolio.

The OQ strategy, which we showcased at Plastivision India 2020, is that we want to be closer to the customer and offer them access to our broadened portfolio. This has been further helped through the opening of a new sales office in Mumbai last year.

At Plastivision India 2020, we highlighted our role as catalyst of change in the plastics industry by collaborating with the whole polymers value chain. This means partnering with all stakeholders from machine manufacturers, to additive suppliers, converters and finally brand owners.

### **Global demand for innovative polymers**

Despite some of the challenges we are facing today, the outlook for polymers is strong. There are so many areas where polymers can still serve as a great alternative to more traditional materials like glass, wood and steel. Where proper recycling systems are in place, polymers are a sustainable solution and despite the current headwinds, there is a strong future for them.

In the polyolefins industry, we are currently providing a range of Polypropylene (PP) products to plastic converters for various market applications. With the imminent operations of our new plant this year, we will be:

- Adding High Density Polyethylene (HDPE) and Low-Density Polyethylene (LLDPE).
- Expanding our PP offering with Random and Block co-polymers.

Currently 100% of our business is PP Homopolymers, but this will evolve once production at the Liwa Plastics Industries Complex (LPIC) gets onstream and we begin to offer polyethylene (PE) solutions for the first time.

### **Innovative solutions by OQ**

Our expanded grade slate is really allowing us to make more possible. At Plastivision 2020, we demonstrated how our PE and PP products are leading to applications in the following industries: Packaging, Infrastructure, Household & Appliances, Agriculture, Automotive, and Healthcare. Combining agility, innovation and state-of-the-art technology, we develop game-changing specialty solutions for customers in the plastics

industry. We also highlighted our Oxo products, such as inks and plasticizers for the packaging and agricultural industries, respectively.

Our Luban brand of polymers, which has been in the market for more than a decade and is now available in over 60 countries, is a great example of this. The range offers enhanced performance and cost savings opportunities for manufacturers. It includes the newly launched Luban HP1102LC homopolymer PP, which helps to address the demand for more efficient and sustainable solutions in Industrial Packaging.

At Plastivision, we showed why we are different and making more possible for our customers across the world, including on the Indian sub-continent, by offering more than PE. An example of this customization is how we have working to help improve infrastructure through our geomembrane solutions. We've been conducting tests in India and Bangladesh, with sandbags and the innovative geomembranes, in an effort to prevent erosion and increase the lifespan of roads.

In addition to roads, geotextiles are ideal materials for many infrastructures works, such as harbors, landfills, drainage structures, parking lots, airport runways and other civil projects. They're a synthetic permeable textile material used to improve the soil characteristics. OQ's recently introduced Luban fiber HP5101LC is a homo-polymer grade that has been specifically developed for the extrusion of staple fibers and high tenacity fibers for applications like geotextiles. Another new woven grade for geomembrane is HP1102LC. These solutions have narrow molecular weight distribution. As a result, the products yield a high-tenacity material that is durable enough to withstand infrastructural and heavy-duty applications.

### **Manufacturing Expansion Plan for the year 2020-2025?**

The US\$6.7bn Liwa Plastics Industries Complex (LPIC) steam cracker project will allow PE to be produced in Oman for the first time, as well as strengthening our PP capabilities. Through LPIC, our product mix will be improved and will enable us to address the growing global market for plastics.

The investment will see OQ's production of PE and PP increase to 1.4 million tons this year. The product portfolio will include linear 440kT LLDPE, 440kT HDPE and 640kT PP. The improvement of the product mix helps our partners to address the growing global demand for innovative polymers.

We are exploring and assessing various scenarios, and we conservatively anticipate a commercial operation of the SCU by mid-2020. By 2020, following the completion of the project, the production capacity at the Suhar facility will more than quadruple, by expanding to 1.4 million tons per year.

### **OQ Role in Sustainability?**

There is a clear shift taking place in multiple industries from a linear to a circular economy. Fortunately, there are many ways in which plastics have a role to play in a circular and sustainable future. It's a matter of working together with innovators to ensure that we don't just follow the trends but lead the way. Sustainability is very important to our vision as a whole. This is why we have a growing R&D team focused on helping partners to meet their sustainability challenges.

We believe that sustainability starts at home. We have partnered with the Omani government, ministry of environment and climate affairs, academia, NGOs and the

private sector in order to introduce re-usable plastic bags into the country to reduce the use of single use plastic bags.

Furthermore, we recently signed a Memorandum of Understanding (MOU) with the German University of Technology in Oman (GUtech) to facilitate a research project on the conversion of plastic waste to industrial process raw material.

Our work together with Milliken is a great example of how complementary additive solutions can help to reduce energy consumption and, therefore, cut back on emissions. In 2018, we launched a new thermoforming grade (Luban HP1151K) to increase both productivity and the overall performance of transparent thermoformed cups, trays and containers. The polypropylene thermoforming grade is based on Milliken's nucleating innovation Hyperform® HPN-600ei.

### **Future trends in packaging and polymers industry**

There is growing demand for lightweight packaging solutions that reduce material costs, improve efficiency and help manufacturers address sustainability targets. OQ is all about embracing momentum, new horizons and opportunities, such as the huge potential that is opening up for polymers to address ever-growing demand for lightweight packaging.

At the same time, food safety & security remain critical topics globally.

Food safety is a critical topic in Consumer Packaging, where reliable polymer solutions can help protect food and extend shelf-life. OQ products undergo regular and stringent testing to help ensure that safety standards are maintained for food grade applications.

We have gained US Food & Drug Administration (FDA) approval for all existing Luban grades. We listen to our customers in the food packaging segment and understand their concerns around food safety and hygiene. We are leveraging innovative plastic solutions to keep food fresh for longer, leading to less waste.

A further area of strong potential for polymer solutions is food security, a major topic of concern in developing countries with fast growing populations. For example, by adopting OQ's innovative Luban LLDPE polymers in Agriculture applications such as greenhouse films and drip irrigation tubes, crop yields can be boosted and food security improved.

Harvested agricultural products also last longer through the use of the right plastic packaging solutions, and therefore result in less waste.