



Indian Plastics Industry Growth Drivers

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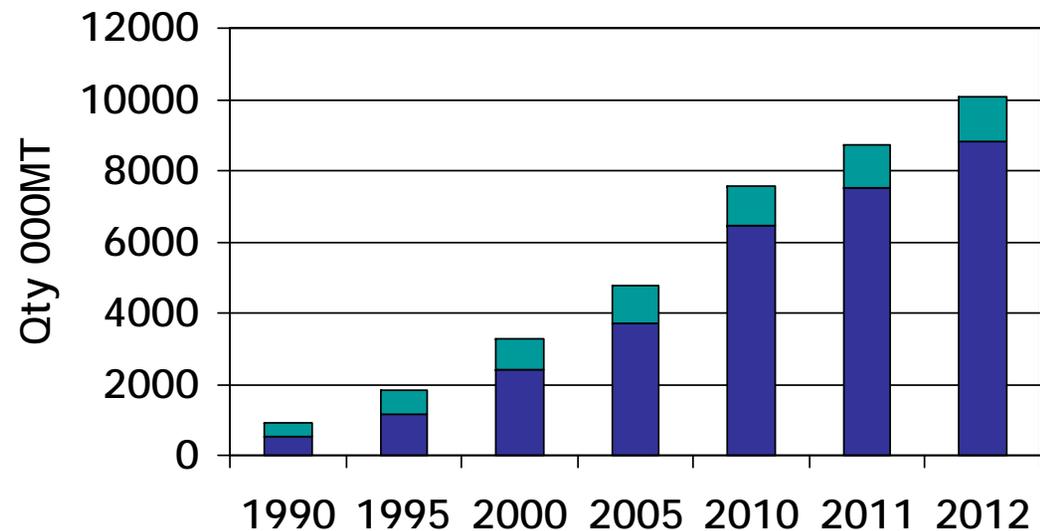


Indian Polymer Industry

The Indian Growth Story

- 1990 – Total polymer consumption <1MMT
- 2012 Poised to touch 10MMT mark
- Commodity Polymers have a major contribution (85%)
- PP and PE account for 61% market share

Indian Polymer Consumption





Growth Driver of Polymer Consumption

Packaging Industry

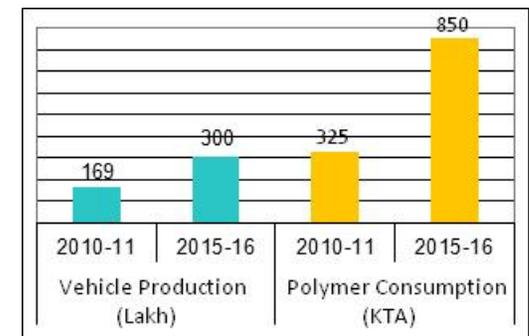
- The Development in Polymer Packaging Products brought in the revolution
- >60% of the polymers consumed in India are used for Packaging applications
- The key growth drivers are
 - Food, Processed Food
 - FMCG items
 - Cosmetics
- Products used are
 - Multilayer Films, BOPP, Shrink & Stretch wrap films
 - Thin Walled Containers
 - Thermoformed products



Polymers consumption in Packaging – 5.2MnMT (2011) to reach 10MnMT by 2020

Automotive

- **Indian Automobile Industry**
 - \$155Bn, 2nd fastest growing market
 - Polymer Penetration 70kg (Passenger Veh.)
 - Polymer Consumption 0.3Mn MTA
- **The key growth drivers for Polymer Usage**
 - Low vehicle penetration
 - Rising income levels
 - Growing middle class
- **Various Applications of Polymers in Automobiles**
 - Bumpers, Dash Board, Door Trims, Grill
 - Front End Module Carrier
 - Battery Containers, Engine Covers, Manifolds
 - Ducts, Seats, Interior parts



Increasing penetration per vehicle is the key for future growth

Appliances

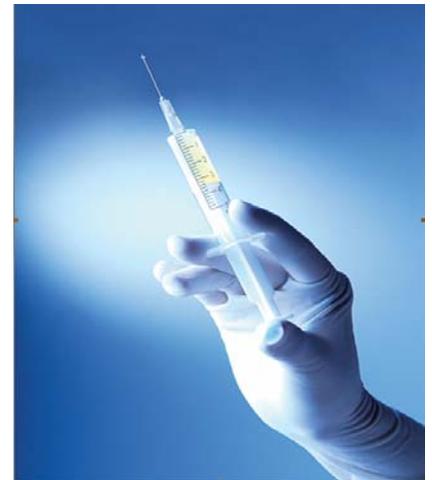
- **Indian Appliances Industry**
 - \$10Bn, Growing at 15%
 - Washing Machines (Semi Auto) largest penetration ~ 15Kg
 - Polymer Consumption ~0.23Mn MTA
- **The key growth drivers for Polymer Usage**
 - Low penetration Level in India
 - Untapped Rural Market
 - Faster Replacement Cycle
 - Availability of Power to all by 2012
- **Various Applications of Polymers in Automobiles**
 - All plastics Washing Machines
 - TV / AC cabinets, Refrigerator Components
 - Water Purifier Body



Increase penetration of Appliance will drive the polymer consumption growth

Healthcare, Hygiene

- India has already emerged as preferred Medical Tourism Destination
- The modern healthcare demands for more polymer based products right from Syringes to Implants
- The key growth drivers for Polymer Usage
 - Syringes, IV Fluid Bottles, Blood Bags
 - Disposable wears
 - Modern Medical Equipments
 - Implants, Artificial Body Parts
- Personnel Hygiene Products
 - Sanitary Products, Baby care products



Agriculture – Plasticsulture

- **Plasticsulture – The emerging sector in India**
- **Growing awareness will drive consumption growth in Agriculture Sector**
- **The key growth drivers for Polymer Usage**
 - **Green Houses**
 - **Crop / Fruit Covers**
 - **Drip Irrigation**
- **Products used are**
 - **Pipes**
 - **Storage Tanks**
 - **Shade Nets**
 - **NW Fabrics / PE Films**



Polymer consumption in Agriculture Sector to grow Multifold

Infrastructure

- Polymers playing a pivotal role in Infrastructure development
- The key growth drivers for Polymer Usage
 - Building and Construction
 - Mega Highway Projects
 - Rural Electrification Projects
- Products used are
 - Pipes (Gas, Water, Sewerage)
 - Storage Tanks
 - Profiles and Decorative Item
 - Geosynthetics



Infrastructure in 2020 – Polymer Consumption expected to touch 5MMT

To Summarise

- Polymer consumption in India is poised to grow multifold, with help of
 - New Developments in Packaging applications
 - Infrastructure boom
 - Modernisation of Agriculture Sector
 - Improvised medical and Healthcare facilities
 - India becoming the Hub for Automobile manufacturing
 - Improved Life Style and disposable income as well rural penetration to drive growth of Appliances

It took more than 50years to reach 10MnMT – Next 10MnMT in less than 10 Years



THANK
YOU!