# A leader in consumer packaging resins



### Leading

We are the world's largest licensor of polyolefin and polypropylene technologies.



- Global producer of polypropylene compounds
- · Global producer of oxyfuels
- North American and European producer of polypropylene
- North American and European producer of oxyfuels
- Producer of polyethylene in Europe

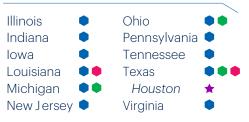
### **Differential**

LDPE autoclave and tubular production with Midwest asset footprint

#### Global

We manufacture at **94** sites in **32** countries. Our products are sold in more than **100** countries.

#### **United States**





### Industry-Leading Sustainability Ambitions and Actions



### Ending plastic waste

### 2MM+ TONS

of recycled and renewablebased polymers produced and marketed annually by 2030

### For every \$

we will invest in venture funds that address the plastic waste challenge; we help catalyze \$5 from co-investors

### Zero

plastic pellet loss to the environment from our facilities



### 2MM tons

of recycled or renewable-based polymers annually by 2030



Plastic made from plastic waste through Mechanical Recycling



Plastic waste converted into feedstock through **Advanced Recycling** 



Bio-renewable waste converted through Advanced Recycling

### Cincinnati, Ohio

### North America Technical Center

## LyondellBasell

### The Cincinnati Technical Center is equipped to provide:

- · Technical Service
- · Application Development
- · Product Development
- Material Properties Development
- Processing, Testing, and Characterization
- · Catalyst Systems Scale-up

#### **Application Lab Capabilities:**

- · Extrusion Coater/Laminator
- Mono, 3 & 7 Layers Blown Film Lines
- 5 layer / 3 extruder Coextrusion Cast Film Line
- Machine Direction Orientation Line

### **Extrusion Coating / Lamination Line**

- Up to 5 layers (3 extruders)
- · Substrate widths up to 30 inches
- Maximum line speed: 3000 fpm
- Substrate pre-treatment Flame, Corona, Plasma, Primer
- · Ozone treatment of melt curtain
- Post-treatment
  Corona & Plasma



- Designed for multi-layer high barrier food packaging (EVOH, PA/PE coextrusions)
- 7 Layer / 7 Extruders
- Typical Layer Distribution:
  - Outer 4 layers: 15-20% of overall structure
- Inner 3 layer: 5-10% of overall structure

- 60mm Pancake die (Die pins: 1.0, 1.5 and 2.0 mm)
- Dual Lip Air Ring
- Maximum lay flat = 350 mm (13.7 in)
- Haul off speed = 12 30 m/min (39 - 98 ft/min)

#### **Product Highlights**

- · Extrusion coating grades
  - Paperboard coating (NA217000)
  - Flexible packaging (NA214000)
- · Blown film grades
  - HDPE high moisture barrier grades (M6020SB)
  - Butene and hexene LLDPE
  - LDPE clarity grades
  - Plexar tie resins
  - PB-1 peel seal resins

### Louisiana Integrated PolyEthylene Joint Venture, LLC

- New world scale LLDPE and LDPE production lines
- Best-in-class gels and color
- IIDPF
  - · Low extractables in blown film
  - Best-in-class cast stretch grades
  - TNPP-free additives

- LDPE
- Excellent optical properties over entire MI range

