

# Hygiene product innovations portfolio

Energy lives here™

## Differentiating hygiene solutions

ExxonMobil Chemical offers an impressive range of polymers to help customers meet their hygiene product innovation needs. These include ExxonMobil™ polypropylene (PP), Vistamaxx™ performance polymers, Achieve™ Advanced PP, Exceed™ and Enable™ performance polymers and Escorez™ tackifiers.

### ■ Nonwoven fabrics

Discover new possibilities and challenge reality using Vistamaxx performance polymers, Achieve Advanced PP and ExxonMobil PP resins for spunbond and meltblown nonwoven processes. Offering ease of processing, softness, strength, and improved barrier performance, they enable customers to add value in a range of applications.

| Typical values            |                       |      |   | Availability |      |        |                      |
|---------------------------|-----------------------|------|---|--------------|------|--------|----------------------|
| Grade                     | Conversion process    | MFR* | Attributes  | Americas     | Asia | Europe | Middle East & Africa |
| Vistamaxx 7020BF          | Spunbond              | 20   | Enables ability to tailor softness, drapability and extensibility of fabric when used in a blend with PP. Good color stability. | ●            | ●    | ●      | ●                    |
| Vistamaxx 7050FL**        | Spunbond<br>Meltblown | 48   | Enables ability to tailor elasticity, softness and drapability of fabrics when used in a blend with PP.                         | ●            | ●    | ●      | ●                    |
| Achieve Advanced PP3854   | Spunbond              | 24   | Outstanding uniformity for high-strength and fine denier.   | ●            |      |        |                      |
| Achieve Advanced PP6035G1 | Meltblown             | 500  | Enhanced strength with broad processing window.   | ●            |      |        |                      |
| Achieve Advanced PP6936G2 | Meltblown             | 1550 | Superior barrier and softness.  | ●            |      |        |                      |
| ExxonMobil PP3155E5       | Spunbond              | 36   | Excellent spinnability for consistent, high-quality fabrics at maximum throughputs.   | ●            | ●    |        |                      |

\* MFR 230°C/2.16kg based on ASTM D1238\* g/10min

\*\* FL grades pass ExxonMobil's test for film appearance with regard to gels, as needed for performance film applications (A' rating).

## ■ Backsheet film

Exceed™ and Enable™ performance polymers based-solutions offer thinner, breathable and non-breathable backsheet films while maintaining excellent mechanical properties for high-quality products. Value creation is possible through improved extrusion line speeds, higher throughput and downgauging.

| Typical values |                       |                 |            |           |                           |                               |   | Availability                  |
|----------------|-----------------------|-----------------|------------|-----------|---------------------------|-------------------------------|---|-------------------------------|
| Grade          | Melt index (g/10 min) | Density (g/cm³) | Blown film | Cast film | Breathable backsheet film | Non-breathable backsheet film | Features  | Global                        |
| Exceed 1018    | 1.0                   | 0.918           | ●          |           | ●                         | ●                             | Toughness and sealing properties.<br>High film integrity.   | ●                             |
| Exceed 1327    | 1.3                   | 0.927           | ●          |           | ●                         | ●                             | Toughness, sealing and optical properties.<br>Stiffness and breathability.<br>Robust operations on blown film lines.      | Not available in the Americas |
| Exceed 3518    | 3.5                   | 0.918           |            | ●         | ●                         | ●                             | Toughness properties.<br>Robust operations on cast film lines.  | ●                             |
| Exceed 3527    | 3.5                   | 0.927           |            | ●         | ●                         | ●                             | Toughness and sealing properties.<br>Stiffness and breathability.<br>Robust operations on cast film lines.                | ●                             |
| Exceed 4518    | 4.5                   | 0.918           |            | ●         | ●                         | ●                             | Toughness and sealing properties.<br>Easy processing on high-speed cast film lines.                                       | ●                             |
| Exceed 4536    | 4.5                   | 0.936           |            | ●         | ●                         | ●                             | Stiffness and toughness balance.<br>Breathability.<br>Easy processing on high-speed cast film lines.                      | ●                             |
| Enable 2005    | 0.5                   | 0.920           | ●          |           | ●                         | ●                             | Easy processing on blown film lines with enhanced yield strength.<br>Bubble stability.<br>High film integrity.            | ●                             |
| Enable 2010    | 1.0                   | 0.920           | ●          | ●         | ●                         | ●                             | Easy processing on film lines with enhanced yield strength.<br>Neck-in improvement in cast lines.<br>High film integrity. | ●                             |
| Enable 4009    | 0.9                   | 0.940           | ●          | ●         |                           | ●                             | Easy processing on blown film lines: bubble stability and extrudability.<br>Stiffness and toughness balance.              | ●                             |



Leg cuff

Top sheet

Adhesives

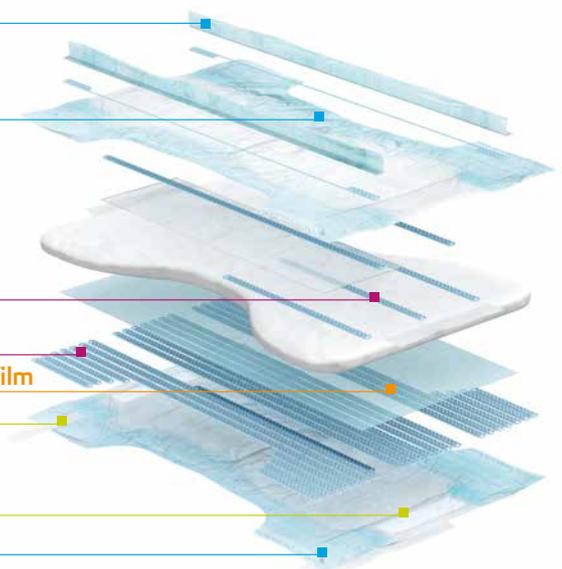
Adhesives

Breathable film

Elastic ear

Waist band

Back sheet



## ■ Elastic laminates using elastic film

Vistamaxx™ performance polymer-based solutions offer tailored elasticity that enable improved fit, comfort and discretion for hygiene products, while maintaining low odor.

| Typical values     |   |      |   | Availability |
|--------------------|---|------|---|--------------|
| Grade              | Conversion process                                | MFR* | Attributes  | Global       |
| Vistamaxx 6102FL** | Film<br>Extrusion coating<br>Extrusion lamination | 3.0  | Provides excellent elasticity in films and enables coating or lamination of elastic layers to nonwoven substrates.<br>Good compatibility with polyolefin nonwoven facing layers in laminates. | ●            |
| Vistamaxx 3588FL** | Film  | 8.0  | Used in the skin layer of multilayer film having core layer delivering elastic behavior.<br>Enables easy film handling and good bonding to the facing layer.                                  | ●            |
| Vistamaxx 3980FL** | Film  | 8.0  | Used in the skin layer of multilayer film having core layer delivering elastic behavior.<br>Enables easy film handling and good bonding to the facing layer.                                  | ●            |

\* MFR 230°C/2.16kg based on ASTM D1238 g/10min.

\*\*FL grades pass ExxonMobil's test for film appearance with regard to gels, as needed for performance film applications ('A' rating).

## ■ Hygiene construction and elastic attachment adhesives

Vistamaxx performance polymers and the Escorez™ 5000 family of high-performance tackifiers are compatible with a wide range of polymers used in nonwoven applications. Adhesives based on these polymers and tackifiers provide low odor, are light in color, and remain thermally stable from manufacturing to product use. These polymers enable optimized value through a new world of adhesive formulating advantages.

| Typical values      |                   |   | Availability |
|---------------------|-------------------|---|--------------|
| Grade               | Viscosity (mPa·s) | Attributes  | Global       |
| Vistamaxx 8380      | 7000*             | Enables high polymer load adhesive formulations with low odor, improved mileage, thermally stable viscosity, and low application temperatures.  | ●            |
| Vistamaxx 8780      | 4550*             | Enables high polymer load adhesive formulations with low odor, improved mileage, thermally stable viscosity, and low application temperatures.  | ●            |
| Escorez 5000 series | 200 - 4000**      | Offer excellent color performance with outstanding shelf-life stability.<br>They also offer low odor, outstanding thermal and UV stability, compatibility with a wide range of polymers and an excellent balance of adhesion and cohesion properties. | ●            |

\* Viscosity at 190°C (374°F) ExxonMobil method mPa·s.

\*\* Viscosity at 160°C (320°F) based on ETM 22-31 mPa·s. Please refer to Escorez Product Data Sheet by grade for individual melt viscosity and other parameters for your adhesive formulation design.



Contact us for more information:  
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