

# DuPont™ Selar® PA3426R Amorphous Nylon Barrier Resin



# Transforming industries and improving lives through material science.

*The foundation of everything we do at DuPont centers around what our customers need. It's not just about the solutions we innovate, but also how we work with our customers.*

*Through our worldwide network of innovation and technical centers, our leading researchers work in close collaboration with customers, from concept to commercialization, using a wide range of processing, prototyping technologies and testing expertise.*

DuPont brings solutions and technologies to an everchanging world enabled by leading brands, products, and innovations. From the industrial to the individual, we empower the world through a wide range of technologies that will ultimately help all of us live smarter, healthier and better.

When it comes to ensuring healthier living and wellbeing, packaging plays the most crucial role as it can ensure food safety to consumers. To the industry, the right food packaging guarantees endurance through shipping, material handling, and storage of the packaged food, as well as protection from external elements, contamination, heat, physical damage, etc. DuPont's engineered polymers portfolio provide innovative food packaging solutions to consumers globally.

We offer the industry's broadest range of high-performance polymers, and we continue to drive material innovation to solve evolving challenges in the food packaging industry, providing innovative food packaging solutions to consumers globally.

## Food Packaging Market Trends and Challenges

As the population becomes increasingly clustered in cities away from agricultural landscapes, global urbanization and the growth of the middle class has led to a rise in the demand for packaged food. Consumer preferences have changed to prioritize shopping from supermarket shelves or even door-to-door food delivery. The push for a pursuit of a healthy lifestyle also drives change in the food choices and portion size.

The most critical function of food packaging is to protect food, prevent spoilage and extend shelf life, thereby reducing waste. The superior tear and puncture resistance of Selar® facilitates greater durability in transport and handling. With excellent protective properties, Selar® can ensure food safety, extend the shelf life of food products, and preserve flavor, color and aroma. The transparent, high-gloss thin film conspicuously showcases the texture and color of packaged food, and the ease and versatility in processing promotes innovative packaging designs to appeal to consumers.

## DuPont™ Selar® PA3426R is an amorphous nylon barrier resin

provides unique oxygen barrier properties when both wet and chilled, making the resin a perfect choice for flavor-sensitive refrigerated foods and beverages.

### Key benefits of Selar® PA:

- Excellent gas barrier (O<sub>2</sub>, N<sub>2</sub>, CO<sub>2</sub>) especially at high humidity and refrigerated conditions
- Very good moisture barrier
- Enhancing clarity, impact and thermoformability of Nylon 6 film
- Resistance to UV
- Resistance to grease / oil, and wide range of chemicals
- Flavor preserving
- Food contact compliant
- Excellent processability



# Applications

Using 5–80% Selar® PA 3426R in PA6 films provides improved oxygen and moisture barrier, optics and impact performance, and processability

## Improved Barrier / Processability

- Improved O<sub>2</sub> and moisture barrier at low temp and high RH
- UV light resistance
- Toughness, formability and throughput

## Improved Product Quality/Cost

- Reduced discoloration with longer life and higher yield

Using Selar® PA 3426R as the barrier / contact layer in EBM bottles provides excellent flavor and odor barrier and is the most efficient oxygen barrier

## Improved Barrier / Anti-scalping

- Selar is more cost effective than EVOH at high room temperature

## Improved Product Quality

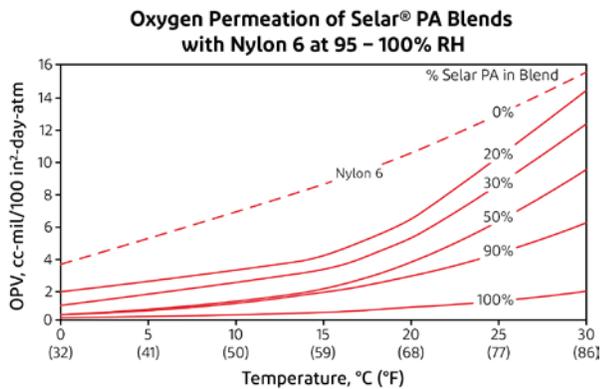
- Selar can prevent the loss of flavor/vitamins/ ingredients and avoid the impartation of off flavors



# Properties

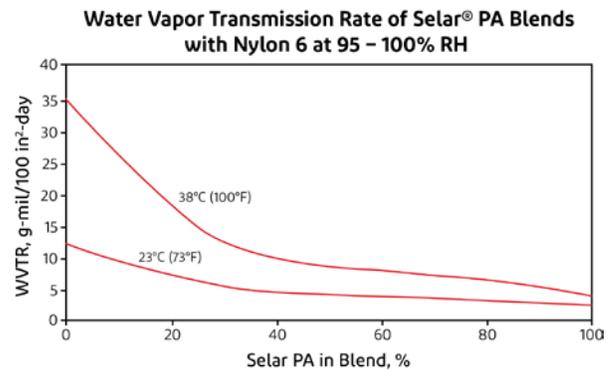
## Oxygen Barrier

Selar® PA improves Nylon 6 films Oxygen barrier performance especially in high humidity and lower temperature conditions



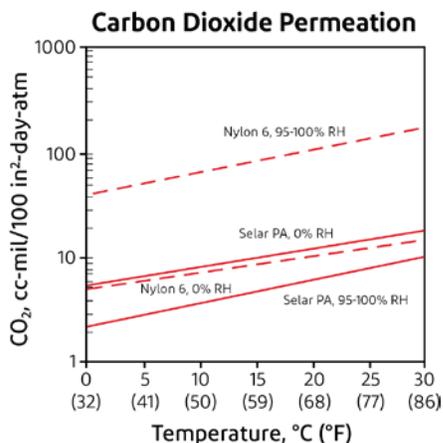
## Moisture Barrier

Selar® PA improves Nylon 6 films moisture barrier performance



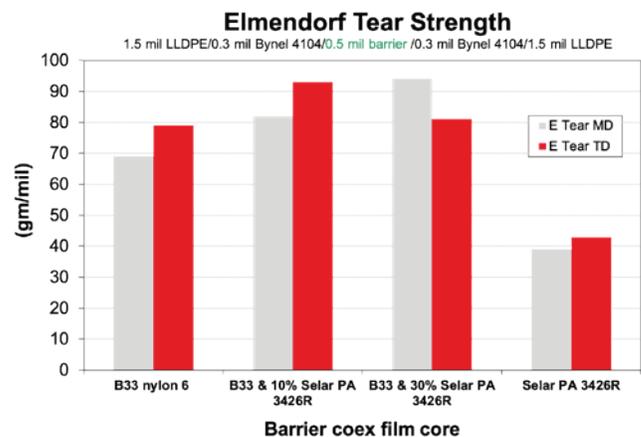
## Carbon Dioxide Barrier

Selar® PA outperforms Nylon 6 CO<sub>2</sub> barrier performance at high humidity conditions



## Tear Strength

Selar® PA improves multi-layer film tear resistance



- Excellent impact performance
- High clarity and transparent optics

- Protects product flavor
- Easy processability

## Mobility & Materials

DuPont Mobility & Materials (M&M) delivers a broad range of technology-based products and solutions to the consumer goods, industrial, transportation, electronics and healthcare markets. M&M partners with customers to drive innovation by utilizing its expertise and knowledge in polymer and materials science. M&M works with customers throughout the value chain to enable material systems solutions for demanding applications and environments. For additional information about DuPont Mobility & Materials, visit [dupont.com](http://dupont.com).



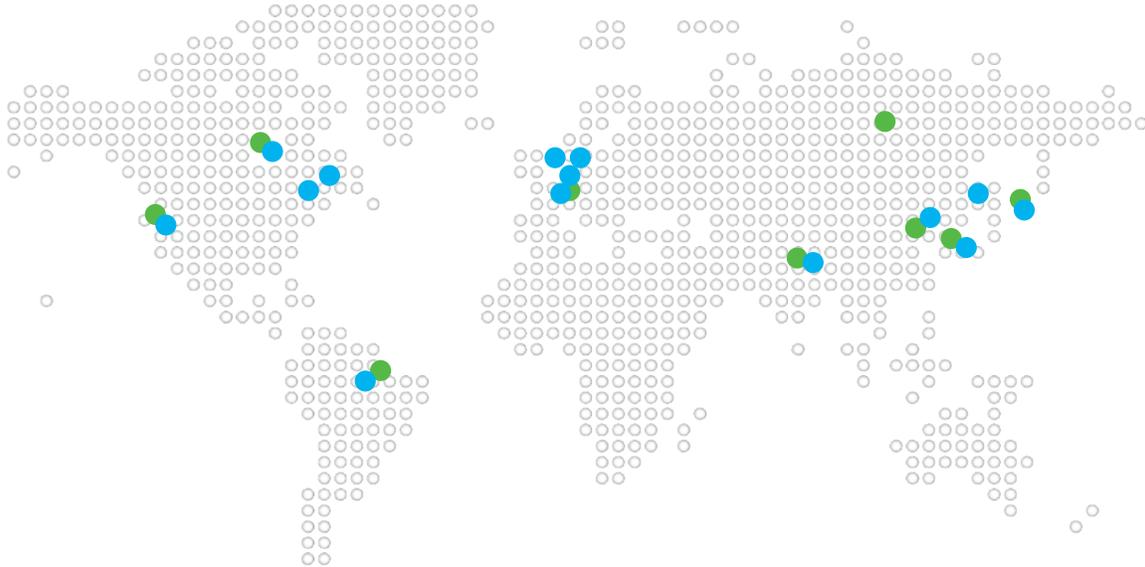
# Global capability. Local solutions.

## ● Innovation Centers

- Brazil
- China
- India
- Russia
- Switzerland
- Japan
- Taiwan
- United States
- Silicon Valley
- Troy, MI

## ● Major R&D Centers

- Brazil
- China
- Denmark
- Korea
- Germany
- Netherlands
- Switzerland
- Japan
- Taiwan
- India
- United States
- Palo Alto, CA
- Wilmington, DE
- Marlborough, MA
- Midland, MI



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