



High Barrier Laminates

Protect to perform.

## High Barrier Primary Packaging

### Typical material structures in double wounded PP film

- PET SiOx / PP – PP / PET SiOx
- PET SiOx / OPA / PP – PP / OPA / PET SiOx

### Application Fields

- O<sub>2</sub> sensitive products
- Aseptic filled products
- Retort applications
- Biopharmaceuticals
- Single- or multi-chamber bags

## High Barrier Secondary Packaging

### Typical material structures in two or three layer laminates

- PET AlOx / PP
- PET SiOx / PP
- PET SiOx / OPA/ PP
- PET SiOx / PET SiOx / PP

### Application Fields:

- Overwrap films
- O<sub>2</sub> sensitive products
- Retort applications

### Available as:

- Pre-made 3-side seal pouches
- Reel fed materials

## Key Benefits for Primary and Secondary Packaging

- Outstanding gas barrier properties
- Minimized H<sub>2</sub>O and CO<sub>2</sub> loss
- High transparency
- Aluminium- and PVC-free
- In-house R&D for customer-specific solutions

## General Information for Film Manufacturing

- Converting of laminates under ISO Class 8 conditions and compliant with ISO Class 7 requirements
- Production in compliance with Chinese GMP
- Pouch manufacturing under ISO Class 7 conditions

## Typical Barriere Values

| Laminate                 | Typical OTR<br>@23°C/50% RH                    | Typical MVTR<br>@23°C/85% RH |
|--------------------------|------------------------------------------------|------------------------------|
| PET AlOx - PP            | ≤0.6 cm <sup>3</sup> /m <sup>2</sup> x d x bar | ≤0.6 g/m <sup>2</sup> x d    |
| PET SiOx - PP            | ≤0.5 cm <sup>3</sup> /m <sup>2</sup> x d x bar | ≤0.5 g/m <sup>2</sup> x d    |
| PET SiOx - OPA - PP      | ≤0.3 cm <sup>3</sup> /m <sup>2</sup> x d x bar | ≤0.3 g/m <sup>2</sup> x d    |
| PET SiOx - PET SiOx - PP | ≤0.2 cm <sup>3</sup> /m <sup>2</sup> x d x bar | ≤0.2 g/m <sup>2</sup> x d    |