Früh Cleanfilm®

Protect to perform.

High Barrier Laminates

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_2 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
– PET / Alu / PP

Application Fields:
– Overwrap films
– O_2 sensitive products
– Retort applications

Key Benefits for Primary and Secondary Packaging

– Outstanding gas barrier properties
– Minimized H_2O and CO_2 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
– Contact-less web cleaning system, qualified according to ISO 14644

Typical Barriere Values

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

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