

Our tried and tested Tristar composite films have a PVdC protective layer for high demands on water vapour, oxygen and aroma barrier. Tristar films have excellent permeability values and are especially suited for hygroscopic products and for use in demanding climate zones. The polyethylene intermediate layer provides the film with it's required flexibility, despite the high coating weights.

PERLALUX® – Tristar films have very good handling properties and can be used on all common blister machines and packaging lines.

The base film production and the gentle, multilayer, five station coating process are both carried out according to GMP standards, with certified manufacturing procedures and validated test procedures. As a result of the choice of a specific base film and of the coating formulation, our Tristar

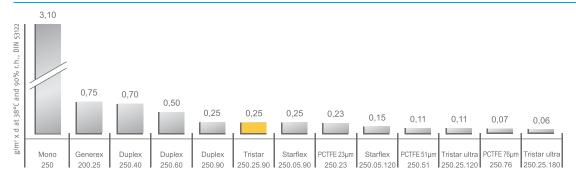


films have excellent thermo-forming properties and are suitable for standard blister designs to the most complex mould configuration.

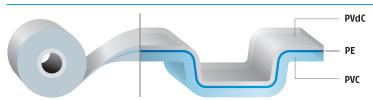
In terms of physical properties, protection and physiological harmlessness, our PERLALUX® – Tristar films comply with all the latest international guidelines, directives and standards for pharmaceutical packaging materials.

PERLALUX® – Tristar is available in transparent, opaque or colours, optional with UV light protection.

## Water vapour transmission rate (WVTR)



## Cross-section



## Technical data for the standard products

Characteristics	250.25.40	250.25.60	250.25.90	Test method
Total weight [g/m²]	401	421	451	DIN 53352
Total thickness [µm]	299	311	328	DIN 53370
Thickness PVC [µm]	250	250	250	DIN 53370
Thickness PE [µm]	25	25	25	DIN 53370
Coating weight PVdC [g/m²]	40	60	90	DIN 53352
Bond strength [N/60 mm]	35	35	35	AAU 9200.304
Shrinkage [%/140°C, 10 min]	- 6	- 6	- 6	DIN 53377
Barrier Values				
WVTR [38°C, 90% r.h.] [g/m² x d]	0.70	0.50	0.25	DIN 53122
O <sub>2</sub> -Barrier [23°C, 50% r.h.] [cm³/m² x bar x d]	1.10	0.70	0.60	ASTM D 3985

Other combinations (PVC gauges, PVdC coating weights) are available.

The figures given are reference values for standard executions and correspond to our current knowledge. No liability may be inferred for results that may be obtained in the application of our products.

## PERLALUX® - Full Range of Blister Films

International Registrations: FDA, USA (registered DMF No. 10686 and 9072) as well as SFDA (Chinese State Food and Drug Administration) our films comply with all the current international guidelines, directives and standards for pharmaceutical packaging materials.

	Structure	Coating	WVTR Barrier	0₂ Barrier
PERLALUX® - Mono	PVC	-	Δ	Δ
PERLALUX® - Generex	PVdC PVC	25g/m² PVdC	ΔΔ	ΔΔΔ
PERLALUX® - Duplex	PVdC PVC	40g/m² PVdC 60g/m² PVdC 90g/m² PVdC	ΔΔ ΔΔ ΔΔΔ	ΔΔΔ ΔΔΔΔ ΔΔΔΔ
PERLALUX® – Tristar	PVdC PE PVC	40g/m² PVdC 60g/m² PVdC 90g/m² PVdC	ΔΔ ΔΔ ΔΔΔ	ΔΔΔ ΔΔΔΔ ΔΔΔΔ
PERLALUX® – Starflex	PVdC TE PVC	90g/m² PVdC 120g/m² PVdC	ΔΔΔ ΔΔΔΔ	ΔΔΔΔ ΔΔΔΔΔ
PERLALUX® – Tristar ultra	PVdC PE PVC	120g/m² PVdC 180g/m² PVdC	ΔΔΔΔΔ ΔΔΔΔΔ	ΔΔΔΔΔ ΔΔΔΔΔ
PERLALUX® - PCTFE	PVC PCTFE	PCTFE 23µm PCTFE 51µm PCTFE 76µm	ΔΔΔΔ ΔΔΔΔΔ ΔΔΔΔΔ	Δ Δ Δ
PERLALUX® - Suppo	PVC / PE PVC / PVdC / PE	– 40g/m² PVdC	$\Delta \over \Delta \Delta$	Δ
PERLALUX® - Liquid	PE PVdC PVC	40g/m² PVdC	ΔΔ	ΔΔΔ

 $\begin{array}{lll} \Delta & & low \ standard \\ \Delta \Delta & & middle \ standard \\ \Delta \Delta \Delta & & high \ standard \\ \Delta \Delta \Delta \Delta & & very \ high \ standard \\ \Delta \Delta \Delta \Delta \Delta & & extremely \ high \ standard \end{array}$ 

Other types available on request.

r.h. = relative humidity