

**Oxygen and Water Vapour Barrier
Properties of Flexible Packaging Films**

Film Type	Thickness (micron)	Oxygen Transmission cc/m ² /24 hours (100% oxygen) 25°C 45% Relative Humidity	Water Vapour g/m ² /24 hours 38°C 90% RH
Mylar Polyester	12	140	40
Metallised Mylar (0D3)	12	0.5	<1
PVdC coated polyester	15	6	14
Plain cellulose	22	8-130 dependant on moisture	3,500
NC coated cellulose	30	10	12
PVdC coated cellulose	28	8	5
LDPE	25	8,000	18
HDPE	25	3,000	9
EVA	25	10,000	70
Propafilm C28	28	10	5
Propafilm CR	26	25	4
Propafilm MG	20	2,200	7
Propafoil (metallised)	25	100	1.5
Cast PP	25	4,200	12
Cast nylon	50	140+ dependant on moisture	35
Cast nylon 66	30	80+ dependant on moisture	180
Oriented nylon 6	15	45 dependant on moisture	260
EVAL F	20	0.2 dependant on moisture	75
EVAL E	20	1.8 dependant	29
Plasticised PVC	20	2,000+ dependant on moisture	200+
Rigid PVC	20	260	60
Extruded PVdC	20	3	5
Oriented polystyrene	25	2,500+	170
Nitrile barrier resin	20	16	120
Aluminium foil	9	0+ dependant on pinholes	0+

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