

**Acetate (Clear Gloss & Matte Finish)**

Description: Acetate film is the standard, food contact formulation used in most films. It has outstanding clarity and gloss in clear film form, with low haze. Very low, near-zero birefringence. High water vapour transmission rate. Good tensile strength and elongation, combined with a relatively low tear strength. Ideal for tamper evident labels and seals, and easy tear tapes. Good die cutting performance and good printability and compatibility with adhesives. Matte finish has good "write-on" characteristics.

Physical Properties:

Property	.003" Gloss	.003" Matte	.005"-.0075" Gloss
Specific Gravity	1.31	1.31	1.30
Equilibrium moisture content% (23C and 50% RH)	1.8	1.8	1.8
Surface energy (dyn cm ⁻¹ / dyne pen)	38-42	38-42	38-42

Optical

Transparency (%) ASTM D1476	91	20.4	89.1
Gloss (%) ASTM D523, BS 2782 520A			
20°	138	1.2	137
60°	146	9.1	143
85°	120	23	116
Haze (%) ASTM D1003, BS 2782 521A	0.8	70	2.0
Refractive Index	1.485		

Mechanical

Tensile strength at break (Nmm ⁻²) ASTM D882	≥75	≥75	≥75
Elongation at break (%) ASTM D882	20-45	20-45	20-45
E-Modulus (Nmm ⁻²) ASTM D882	2.8 x 10 ³	2.8 x 10 ³	2.6 x 10 ³
Tear initiation (N) ASTM D1938	0.095	0.095	
Tear propagation (N) ASTM D1938	0.071	0.071	
Burst Strength (psi) BS 4768	72.5	72.5	

Thermal

Softening temperature (C)	137	137	137
Glass transition temperature Tg (C)	120	120	
Gas Permeability			
Moisture vapour transmission (permeability) gm ² day ⁻¹ 50u film, 25C and 100% ARH	1025	1025	

Electrical

Surface Resistivity (Oh MSQ ⁻¹)	1.6 x 10 ¹³		
Dielectric breakdown (kVmm ⁻¹)	150		

Please note: All properties are measured after conditioning to 23C, 50% RH unless otherwise stated.

The values quoted are typical lab results and must not be regarded as supply specification.

For some properties sample preparation will critically affect measured values, eg the elongation at break figures above are only achieved if the test specimens are cut to give a very good edge (a guillotine is not suitable).

Units quoted are the ones conventionally used. SI or US imperial figures are available on request.

Every effort has been made to ensure that the above information is correct and in accordance with current knowledge. However, the company cannot accept responsibility for errors or omissions.