

Technical Data Sheet for BIAXIS Films

General Properties	Units	BIAXIS 8	BIAXIS 10	BIAXIS 12	Standard / Test Method				
Thickness	Gauge	32 –5%, +1%	40 –5%, +1%	48 –5%, +1%	Basis Weight (ABI)				
Yield	in^2/lb .	$76,500 \pm 3\%$	$61,\!200\pm3\%$	$51{,}000\pm3\%$	Calculated				
Melting Point	°F	428 ± 4	428 ± 4	428 ± 4	ISO 3146-C /DSC				
Dimensional Stability	% (MD / TD)	< 2.5 / < 1.5	< 2.5 / < 1.5	< 2.5 / < 1.5	320°F, 5 min (ABI)				
Mechanical Properties									
Tensile Strength	psi	> 32,000	> 32,000	> 32,000	ASTM D 882				
Elongation at Break	% (MD / TD)	120 / 100 \pm 30	120 / 100 ± 30	120 / 100 ± 30	ASTM D 882				
Puncture Resistance	lbf	> 2.0	> 2.0	> 2.5	Pointed Probe (ABI)				
Flex-Crack	holes / 15.5 in^2	< 1	< 1	< 1	900 cycles (ABI)				
Surface Properties									
COF (film to film)	(static / dynamic)	< 0.8 / < 0.8	< 0.8 / < 0.8	< 0.8 / < 0.8	ASTM D 1894				
(film to metal)	(static / dynamic)	< 0.4 / < 0.4	< 0.4 / < 0.4	< 0.4 / < 0.4	ASTM D 1894				
Surface Tension (treated / non-treated)	dynes / cm	> 52 / > 38	> 52 / > 38	> 52 / > 38	ASTM D 2578				
Surface Tension (both sides treated)	dynes / cm	> 48	> 48	> 48	ASTM D 2578				
Optical Properties									
Haze	%	< 3	< 3	< 3	ASTM D 1003				
Transmittance	%	> 92	> 92	> 92	ASTM D 1003				
Gloss (20°)	Gloss Units	> 80	> 80	> 80	ASTM D 2457				
Barrier Properties									
O ₂ Transmission Rate	$cm^{3}/(100in^{2}\cdot 24h)$	< 3.8	< 3.0	< 2.6	73°F, 50% RH; ASTM D 3985				

BIAXIS film: complies with FDA regulation 21 CFR, Part 177, Subpart B, Paragraph 177.1500, and

is approved for meat, cheese, seafood and liquid packing by the Canadian Food Inspection Agency.

Recommendations and data given are based on experience to date. No liability can be assumed in connection with their usage.



Technical Data Sheet for BIAXIS Films

General Properties	Units	BIAXIS 8	BIAXIS 10	BIAXIS 12	Standard / Test Method
Thickness	μm	8 ± 3%	10 ± 3%	$12\pm3\%$	Basis Weight (ABI)
Yield	m^2/kg	$109\pm3\%$	87.0 ± 3%	$72.5\pm3\%$	Calculated
Melting Point	°C	220 ± 2	220 ± 2	220 ± 2	ISO 3146-C / DSC
Dimensional Stability	% (MD / TD)	< 2.5 / < 1.5	< 2.5 / < 1.5	< 2.5 / < 1.5	160°C, 5 min (ABI)
Mechanical Properties					-
Tensile Strength	MPa	> 220	> 220	> 220	ASTM D 882
Elongation at Break	% (MD / TD)	120 / 100 ± 30	120 / 100 ± 30	120 / 100 ± 30	ASTM D 882
Puncture Resistance	Ν	> 9	> 8	> 11	Pointed Probe (ABI)
Flex-Crack	holes / dm^2	< 1	< 1	< 1	900 cycles (ABI)
Surface Properties					
COF (film to film)	(static / dynamic)	< 0.8 / <0.8	< 0.8 / <0.8	< 0.8 / <0.8	ASTM D 1894
(film to metal)	(static / dynamic)	< 0.4 / <0.4	< 0.4 / <0.4	< 0.4 / <0.4	ASTM D 1894
Surface Tension (treated / non-treated)	dynes / cm	> 52 / > 38	> 52 / > 38	> 52 / > 38	ASTM D 2578
Surface Tension (both sides treated)	dynes / cm	> 48	> 48	> 48	ASTM D 2578
Optical Properties					
Haze	%	< 3	< 3	< 3	ASTM D 1003
Transmittance	%	> 92	> 92	> 92	ASTM D 1003
Gloss (20°)	Gloss Units	> 80	> 80	> 80	ASTM D 2457
Barrier Properties					
O ₂ Transmission Rate	$cm^{3}/m^{2}/24h$	< 58	< 46.5	< 40	23°C, 50% RH; ASTM D 3985

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