



Technical Data Sheet for BIAxis Films

General Properties	Units	BIAXIS 12	BIAXIS 15	BIAXIS 20	BIAXIS 22.5	BIAXIS 25	Standard / Test Method
Thickness	Gauge	48 -5%, +1%	60 -5%, +1%	80 -5%, +1%	90 -5%, +1%	100 -5%, +1%	Basis Weight (ABI)
Yield	in ² / lb.	51,000 ± 3%	40,800 ± 3%	30,600 ± 3%	27,200 ± 3%	24,500 ± 3%	Calculated
Melting Point	°F	428 ± 4	428 ± 4	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	< 2.5 / < 1.5	< 2.5 / < 1.5	320°F, 5 min (ABI)
Mechanical Properties							
Tensile Strength	psi	> 32,000	> 32,000	> 32,000	> 32,000	> 32,000	ASTM D 882
Elongation at Break	% (MD / TD)	120 / 100 ± 30	120 / 100 ± 30	120 / 100 ± 30	120 / 100 ± 30	120 / 100 ± 30	ASTM D 882
Puncture Resistance	lbf	> 2.5	> 2.9	> 3.2	> 3.4	> 3.4	Pointed Probe (ABI)
Flex-Crack	holes / 15.5 in ²	< 1	< 1	< 2	< 2	< 2	900 cycles (ABI)
Surface Properties							
COF (film to film)	(static / dynamic)	< 0.8 / < 0.8	< 0.8 / < 0.8	< 0.8 / < 0.8	< 0.8 / < 0.8	< 0.8 / < 0.8	ASTM D 1894
COF (film to metal)	(static / dynamic)	< 0.4 / < 0.4	< 0.4 / < 0.4	< 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	> 52 / > 38	> 52 / > 38	ASTM D 2578
Surface Tension (both sides treated)	dynes / cm	> 48	> 48	> 48	> 48	> 48	ASTM D 2578
Optical Properties							
Haze	%	< 3	< 3	< 3	< 3	< 3	ASTM D 1003
Transmittance	%	> 92	> 92	> 92	> 92	> 92	ASTM D 1003
Gloss (20°)	Gloss Units	> 80	> 80	> 80	> 80	> 80	ASTM D 2457
Barrier Properties							
O ₂ Transmission Rate	cm ³ / (100in ² ·24h)	< 2.6	< 2.3	< 1.7	< 1.5	< 1.3	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 12	BIAXIS 15	BIAXIS 20	BIAXIS 22.5	BIAXIS 25	Standard / Test Method
Thickness	µm	12 ± 3%	15 ± 3%	20 ± 3%	22.5 ± 3%	25 ± 3%	Basis Weight (ABI)
Yield	m ² / kg	72.5 ± 3%	58.0 ± 3%	43.5 ± 3%	38.6 ± 3%	34.8 ± 3%	Calculated
Melting Point	°C	220 ± 2	220 ± 2	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	< 2.5 / < 1.5	< 2.5 / < 1.5	160°C, 5 min (ABI)
Mechanical Properties							
Tensile Strength	MPa	> 220	> 220	> 220	> 220	> 220	ASTM D 882
Elongation at Break	% (MD / TD)	120 / 100 ± 30	120 / 100 ± 30	120 / 100 ± 30	120 / 100 ± 30	120 / 100 ± 30	ASTM D 882
Puncture Resistance	N	> 11	> 12	> 14	> 15	> 15	Pointed Probe (ABI)
Flex-Crack	holes / dm ²	< 1	< 1	< 2	< 2	< 2	900 cycles (ABI)
Surface Properties							
COF (film to film)	(static / dynamic)	< 0.8 / < 0.8	< 0.8 / < 0.8	< 0.8 / < 0.8	< 0.8 / < 0.8	< 0.8 / < 0.8	ASTM D 1894
COF (film to metal)	(static / dynamic)	< 0.4 / < 0.4	< 0.4 / < 0.4	< 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	> 52 / > 38	> 52 / > 38	ASTM D 2578
Surface Tension (both sides treated)	dynes / cm	> 48	> 48	> 48	> 48	> 48	ASTM D 2578
Optical Properties							
Haze	%	< 3	< 3	< 3	< 3	< 3	ASTM D 1003
Transmittance	%	> 92	> 92	> 92	> 92	> 92	ASTM D 1003
Gloss (20°)	Gloss Units	> 80	> 80	> 80	> 80	> 80	ASTM D 2457
Barrier Properties							
O ₂ Transmission Rate	cm ³ / m ² / 24h	< 40	< 36	< 26	< 23	< 20	23°C, 50% RH; ASTM D 3985

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