Miscellaneous Properties of Legacy Tyvek® 1073B and 1059B and Transition Tyvek® 1073B and 1059B — English

Property	Comparable Standard Test Method	Units	Typical Values		Typical Values	
			Legacy Tyvek® 1073B	Transition Tyvek® 1073B	Legacy Tyvek® 1059B	Transition Tyvek® 1059B
Microbial Barrier	ASTM F1608 ASTM F2638	LRV % pMax	›5 ‹0.3	›5 ‹0.3	›4 ‹0.5	›4 ‹0.5
Bendtsen Air Permeability	ISO 5636-3	mL/min	572	540	671	540
Moisture Vapor Transmission Rate	TAPPI T523[1]	$g/m^2/24$ hr	1615	›1600	1640	›1600
Hydrostatic Head	AATCC TM 127 EN 20811[2]	in. H_2O	58	62	57	61
Tensile Strength, MD	ASTM D5035[3] EN ISO 1924-2[3]	lb_f	44	46	38	39
Tensile Strength, CD	ASTM D5035[3] EN ISO 1924-2[3]	lb_f	45	49	38	42
Elongation, MD	ASTM D5035[3] EN ISO 1924-2[3]	%	20	20	19	19
Elongation, CD	ASTM D5035[3] EN ISO 1924-2[3]	%	24	24	23	23
Elmendorf Tear, MD	ASTM D1424 EN 21974	lb_f	0.7	0.7	0.6	0.7
Elmendorf Tear, CD	ASTM D1424 EN 21974	lb_f	0.8	0.9	0.7	0.8
Mullen Burst	ASTM D774 ISO 2758	psi	176	175	153	149
Spencer Puncture	ASTM D3420[4]	in.-$lb_f/in.^2$	50	55	39	42
Opacity	TAPPI T425 ISO 2471[5]	%	91	92	89	92
Thickness (Individual)*	ASTM D1777[6] EN 20534[7] EN ISO 534	mils	7.0	7.8	6.2	7.0

NOTES: Transition Tyvek® 1073B and 1059B typical values represent data across different line and polymer combinations from all manufacturing campaigns done before November 2015. Values will be refreshed, as necessary, upon data collection from additional campaigns and long-term variability discernment. Miscellaneous properties represent typical values based on roll averages, except for thickness (individual), with samples taken uniformly across the sheet. Thickness (individual) typical values are based on a population of pooled individual data points from multiple rolls. Miscellaneous properties are not controlled in the process, and therefore, are subject to slight changes from "normal" process drift. Customers must conduct their own tests to ensure suitability for the intended application. These properties are representative for uncoated Tyvek® as sold by DuPont. Any downstream operations, such as coatings applied by sterile packaging manufacturers (SPMs), may change these values.

*Thickness variability target is equal to, or less than, incumbent products.
MD = machine direction; CD = cross direction; LRV = log reduction value

1. Test conditions: 73˚F (23°C), 85% RH.
2. Rate of use: 60 cm H_2O/min.
3. Modified for speed, sample width (1 in.) and gauge length.
4. Modified for $^9/_{16}$-in. (14.28-mm) probe.
5. Modified for different backing standards, area and illumination.
6. 7.15 psi, 0.625-in. diameter presser foot.
7. Surface 2 cm^2, pressure 14.5 psi (50 kPa)

Miscellaneous Properties of Legacy Tyvek® 1073B and 1059B and Transition Tyvek® 1073B and 1059B — Metric

Property	Comparable Standard Test Method	Units	Typical Values		Typical Values	
			Legacy Tyvek® 1073B	Transition Tyvek® 1073B	Legacy Tyvek® 1059B	Transition Tyvek® 1059B
Microbial Barrier	ASTM F1608 ASTM F2638	LRV % pMax	›5 ‹0.3	›5 ‹0.3	›4 ‹0.5	›4 ‹0.5
Bendtsen Air Permeability	ISO 5636-3	mL/min	572	540	671	540
Moisture Vapor Transmission Rate	TAPPI T523[1]	$g/m^2/24$ hr	1615	›1600	1640	›1600
Hydrostatic Head	AATCC TM 127 EN 20811[2]	cm H_2O	147	157	145	155
Tensile Strength, MD	ASTM D5035[3] EN ISO 1924-2[3]	N	196	205	169	174
Tensile Strength, CD	ASTM D5035[3] EN ISO 1924-2[3]	N	200	219	169	185
Elongation, MD	ASTM D5035[3] EN ISO 1924-2[3]	%	20	20	19	19
Elongation, CD	ASTM D5035[3] EN ISO 1924-2[3]	%	24	24	23	23
Elmendorf Tear, MD	ASTM D1424 EN 21974	N	3.3	3.2	2.8	3.0
Elmendorf Tear, CD	ASTM D1424 EN 21974	N	3.5	4.0	3.0	3.8
Mullen Burst	ASTM D774 ISO 2758	kPa	1213	1207	1055	1027
Spencer Puncture	ASTM D3420[4]	J/m^2	8756	9632	6830	7355
Opacity	TAPPI T425 ISO 2471[5]	%	91	92	89	92
Thickness (Individual)*	ASTM D1777[6] EN 20534[7] EN ISO 534	µm	178	199	157	178

NOTES: Transition Tyvek® 1073B and 1059B typical values represent data across different line and polymer combinations from all manufacturing campaigns done before November 2015. Values will be refreshed, as necessary, upon data collection from additional campaigns and long-term variability discernment. Miscellaneous properties represent typical values based on roll averages, except for thickness (individual), with samples taken uniformly across the sheet. Thickness (individual) typical values are based on a population of pooled individual data points from multiple rolls. Miscellaneous properties are not controlled in the process, and therefore, are subject to slight changes from "normal" process drift. Customers must conduct their own tests to ensure suitability for the intended application. These properties are representative for uncoated Tyvek® as sold by DuPont. Any downstream operations, such as coatings applied by sterile packaging manufacturers (SPMs), may change these values.

*Thickness variability target is equal to, or less than, incumbent products.
MD = machine direction; CD = cross direction; LRV = log reduction value

1. Test conditions: 73˚F (23°C), 85% RH.
2. Rate of use: 60 cm H_2O/min.
3. Modified for speed, sample width (2.54 cm) and gauge length.
4. Modified for $^9/_{16}$-in. (14.28-mm) probe.
5. Modified for different backing standards, area and illumination.
6. 7.15 psi, 0.625-in. diameter presser foot.
7. Surface 2 cm^2, pressure 14.5 psi (50 kPa).