

# Miscellaneous Properties of Legacy Tyvek® 1073B and 1059B – English

| Property                         | Comparable Standard Test Method | Units                                 | Typical Values      |                     |
|----------------------------------|---------------------------------|---------------------------------------|---------------------|---------------------|
|                                  |                                 |                                       | Legacy Tyvek® 1073B | Legacy Tyvek® 1059B |
| Microbial Barrier                | ASTM F1608                      | LRV                                   | >5                  | >4                  |
|                                  | ASTM F2638                      | % pMax                                | <0.3                | <0.5                |
| Bendtsen Air Permeability        | ISO 5636-3                      | mL/min                                | 572                 | 671                 |
| Moisture Vapor Transmission Rate | TAPPI T523 <sup>1</sup>         | g/m <sup>2</sup> /24 hr               | 1615                | 1640                |
| Hydrostatic Head                 | AATCC TM 127                    | in. H <sub>2</sub> O                  | 58                  | 57                  |
|                                  | EN 20811 <sup>2</sup>           |                                       |                     |                     |
| Tensile Strength, MD             | ASTM D5035 <sup>3</sup>         | lb <sub>f</sub>                       | 44                  | 38                  |
|                                  | EN ISO 1924-2 <sup>3</sup>      |                                       |                     |                     |
| Tensile Strength, CD             | ASTM D5035 <sup>3</sup>         | lb <sub>f</sub>                       | 45                  | 38                  |
|                                  | EN ISO 1924-2 <sup>3</sup>      |                                       |                     |                     |
| Elongation, MD                   | ASTM D5035 <sup>3</sup>         | %                                     | 20                  | 19                  |
|                                  | EN ISO 1924-2 <sup>3</sup>      |                                       |                     |                     |
| Elongation, CD                   | ASTM D5035 <sup>3</sup>         | %                                     | 24                  | 23                  |
|                                  | EN ISO 1924-2 <sup>3</sup>      |                                       |                     |                     |
| Elmendorf Tear, MD               | ASTM D1424                      | lb <sub>f</sub>                       | 0.7                 | 0.6                 |
|                                  | EN 21974                        |                                       |                     |                     |
| Elmendorf Tear, CD               | ASTM D1424                      | lb <sub>f</sub>                       | 0.8                 | 0.7                 |
|                                  | EN 21974                        |                                       |                     |                     |
| Mullen Burst                     | ASTM D774<br>ISO 2758           | psi                                   | 176                 | 153                 |
| Spencer Puncture                 | ASTM D3420 <sup>4</sup>         | in.-lb <sub>f</sub> /in. <sup>2</sup> | 50                  | 39                  |
| Opacity                          | TAPPI T425                      | %                                     | 91                  | 89                  |
|                                  | ISO 2471 <sup>5</sup>           |                                       |                     |                     |
| Thickness (Individual)           | ASTM D1777 <sup>6</sup>         | mils                                  | 7.0                 | 6.2                 |
|                                  | EN 20534 <sup>7</sup>           |                                       |                     |                     |
|                                  | EN ISO 534                      |                                       |                     |                     |

NOTES: 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 Legacy Tyvek® as sold by DuPont. Any downstream operations, such as coatings applied by sterile packaging manufacturers (SPMs), may change these values.

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<sub>2</sub>O/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<sup>2</sup>, pressure 14.5 psi (50 kPa).

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## Miscellaneous Properties of Legacy Tyvek® 1073B and 1059B – Metric

| Property                         | Comparable Standard<br>Test Method | Units                   | Typical Values         |                        |
|----------------------------------|------------------------------------|-------------------------|------------------------|------------------------|
|                                  |                                    |                         | Legacy Tyvek®<br>1073B | Legacy Tyvek®<br>1059B |
| Microbial Barrier                | ASTM F1608                         | LRV                     | >5                     | >4                     |
|                                  | ASTM F2638                         | % pMax                  | <0.3                   | <0.5                   |
| Bendtsen Air Permeability        | ISO 5636-3                         | mL/min                  | 572                    | 671                    |
| Moisture Vapor Transmission Rate | TAPPI T523 <sup>1</sup>            | g/m <sup>2</sup> /24 hr | 1615                   | 1640                   |
| Hydrostatic Head                 | AATCC TM 127                       | cm H <sub>2</sub> O     | 147                    | 145                    |
|                                  | EN 20811 <sup>2</sup>              |                         |                        |                        |
| Tensile Strength, MD             | ASTM D5035 <sup>3</sup>            | N                       | 196                    | 169                    |
|                                  | EN ISO 1924-2 <sup>3</sup>         |                         |                        |                        |
| Tensile Strength, CD             | ASTM D5035 <sup>3</sup>            | N                       | 200                    | 169                    |
|                                  | EN ISO 1924-2 <sup>3</sup>         |                         |                        |                        |
| Elongation, MD                   | ASTM D5035 <sup>3</sup>            | %                       | 20                     | 19                     |
|                                  | EN ISO 1924-2 <sup>3</sup>         |                         |                        |                        |
| Elongation, CD                   | ASTM D5035 <sup>3</sup>            | %                       | 24                     | 23                     |
|                                  | EN ISO 1924-2 <sup>3</sup>         |                         |                        |                        |
| Elmendorf Tear, MD               | ASTM D1424                         | N                       | 3.3                    | 2.8                    |
|                                  | EN 21974                           |                         |                        |                        |
| Elmendorf Tear, CD               | ASTM D1424                         | N                       | 3.5                    | 3.0                    |
|                                  | EN 21974                           |                         |                        |                        |
| Mullen Burst                     | ASTM D774<br>ISO 2758              | kPa                     | 1213                   | 1055                   |
| Spencer Puncture                 | ASTM D3420 <sup>4</sup>            | J/m <sup>2</sup>        | 8756                   | 6830                   |
| Opacity                          | TAPPI T425                         | %                       | 91                     | 89                     |
|                                  | ISO 2471 <sup>5</sup>              |                         |                        |                        |
| Thickness (Individual)           | ASTM D1777 <sup>6</sup>            | µm                      | 178                    | 157                    |
|                                  | EN 20534 <sup>7</sup>              |                         |                        |                        |
|                                  | EN ISO 534                         |                         |                        |                        |

NOTES: 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 Legacy Tyvek® as sold by DuPont. Any downstream operations, such as coatings applied by sterile packaging manufacturers (SPMs), may change these values.

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<sub>2</sub>O/min.
3. Modified for speed, sample width (2.54 cm) and gauge length.
4. Modified for <sup>9</sup>/<sub>16</sub>-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<sup>2</sup>, pressure 14.5 psi (50 kPa).

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