

# SABIC® HP2027LN

HP2027LN is a Low Density Polyethylene grade with increase density. It typically exhibits better draw down ability with high output. Films typically have excellent optics and high rigidity. It contains slip and antiblock additives.  
Information provided by SABIC

| Physical Properties | Metric     | English                   | Comments   |
|---------------------|------------|---------------------------|------------|
| Density             | 0.927 g/cc | 0.0335 lb/in <sup>3</sup> | ASTM D1505 |

|           |                                                      |                                                      |            |
|-----------|------------------------------------------------------|------------------------------------------------------|------------|
| Melt Flow | 2.0 g/10 min<br>@Load 2.16 kg,<br>Temperature 190 °C | 2.0 g/10 min<br>@Load 4.76 lb,<br>Temperature 374 °F | ASTM D1238 |
|-----------|------------------------------------------------------|------------------------------------------------------|------------|

| Mechanical Properties              | Metric   | English  | Comments  |
|------------------------------------|----------|----------|-----------|
| Film Tensile Strength at Yield, MD | 11.0 MPa | 1600 psi | ASTM D882 |

|                                    |          |          |           |
|------------------------------------|----------|----------|-----------|
| Film Tensile Strength at Yield, TD | 18.0 MPa | 2610 psi | ASTM D882 |
|------------------------------------|----------|----------|-----------|

|                              |       |       |           |
|------------------------------|-------|-------|-----------|
| Film Elongation at Break, MD | 326 % | 326 % | ASTM D882 |
|------------------------------|-------|-------|-----------|

|                              |       |       |           |
|------------------------------|-------|-------|-----------|
| Film Elongation at Break, TD | 522 % | 522 % | ASTM D882 |
|------------------------------|-------|-------|-----------|

|                             |               |           |            |
|-----------------------------|---------------|-----------|------------|
| Elmendorf Tear Strength, MD | 9.00 g/micron | 229 g/mil | ASTM D1922 |
|-----------------------------|---------------|-----------|------------|

|                             |               |           |            |
|-----------------------------|---------------|-----------|------------|
| Elmendorf Tear Strength, TD | 14.0 g/micron | 356 g/mil | ASTM D1922 |
|-----------------------------|---------------|-----------|------------|

|           |               |            |            |
|-----------|---------------|------------|------------|
| Dart Drop | 2.00 g/micron | 50.8 g/mil | ASTM D1709 |
|-----------|---------------|------------|------------|

|                                    |          |          |           |
|------------------------------------|----------|----------|-----------|
| Film Tensile Strength at Break, MD | 27.0 MPa | 3920 psi | ASTM D882 |
|------------------------------------|----------|----------|-----------|

|                                    |          |          |           |
|------------------------------------|----------|----------|-----------|
| Film Tensile Strength at Break, TD | 18.0 MPa | 2610 psi | ASTM D882 |
|------------------------------------|----------|----------|-----------|

|                       |         |           |           |
|-----------------------|---------|-----------|-----------|
| 1% Secant Modulus, MD | 260 MPa | 37700 psi | ASTM D882 |
|-----------------------|---------|-----------|-----------|

|                       |         |           |           |
|-----------------------|---------|-----------|-----------|
| 1% Secant Modulus, TD | 290 MPa | 42100 psi | ASTM D882 |
|-----------------------|---------|-----------|-----------|

| Thermal Properties    | Metric  | English | Comments   |
|-----------------------|---------|---------|------------|
| Vicat Softening Point | 92.0 °C | 198 °F  | ASTM D1525 |

| Optical Properties | Metric                        | English                        | Comments                                 |
|--------------------|-------------------------------|--------------------------------|------------------------------------------|
| Haze               | 4.0 %<br>@Thickness 0.0300 mm | 4.0 %<br>@Thickness 0.00118 in | 2.5 BUR using 100% HP2027LN.; ASTM D1003 |

|       |      |      |                 |
|-------|------|------|-----------------|
| Gloss | 72 % | 72 % | 45°; ASTM D2457 |
|-------|------|------|-----------------|