

SABIC® HP4024WN

HP4024WN is a Low Density Polyethylene grade suitable for producing general-purpose films and it gives excellent processability and optical properties with good mechanical properties. HP4024WN contains slip and antiblock additives.

| Physical Properties | Metric | English | Comments |
|------------------------------------|--|--|---|
| Density | 0.923 g/cc | 0.0333 lb/in ³ | ASTM D1505 |
| Melt Flow | 4.0 g/10 min @Load 2.16 kg, Temperature 190 °C | 4.0 g/10 min @Load 4.76 lb, Temperature 374 °F | ASTM D1238 |
| Mechanical Properties | Metric | English | Comments |
| Film Tensile Strength at Yield, MD | 10.0 MPa | 1450 psi | Properties have been measured by producing 30 µm film with 2.5 BUR using 100% HP4024WN.; ASTM D882 |
| Film Tensile Strength at Yield, TD | 10.0 MPa | 1450 psi | Properties have been measured by producing 30 µm film with 2.5 BUR using 100% HP4024WN.; ASTM D882 |
| Film Elongation at Break, MD | 265 % | 265 % | Properties have been measured by producing 30 µm film with 2.5 BUR using 100% HP4024WN.; ASTM D882 |
| Film Elongation at Break, TD | 600 % | 600 % | Properties have been measured by producing 30 µm film with 2.5 BUR using 100% HP4024WN.; ASTM D882 |
| Elmendorf Tear Strength, MD | 10.0 g/micron | 254 g/mil | Properties have been measured by producing 30 µm film with 2.5 BUR using 100% HP4024WN.; ASTM D1922 |
| Elmendorf Tear Strength, TD | 14.0 g/micron | 356 g/mil | Properties have been measured by producing 30 µm film with 2.5 BUR using 100% HP4024WN.; ASTM D1922 |
| Dart Drop | 2.00 g/micron | 50.8 g/mil | Properties have been measured by producing 30 µm film with 2.5 BUR using 100% HP4024WN.; ASTM D1709 |

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| Film Tensile Strength at Break, MD | 32.0 MPa | 4640 psi | Properties have been measured by producing 30 μ m film with 2.5 BUR using 100% HP4024WN.; ASTM D882 |
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| Film Tensile Strength at Break, TD | 24.0 MPa | 3480 psi | Properties have been measured by producing 30 μ m film with 2.5 BUR using 100% HP4024WN.; ASTM D882 |
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| 1% Secant Modulus, MD | 277 MPa | 40200 psi | Properties have been measured by producing 30 μ m film with 2.5 BUR using 100% HP4024WN.; ASTM D882 |
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| 1% Secant Modulus, TD | 224 MPa | 32500 psi | Properties have been measured by producing 30 μ m film with 2.5 BUR using 100% HP4024WN.; ASTM D882 |
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| Thermal Properties | Metric | English | Comments |
|-----------------------|---------|---------|------------|
| Vicat Softening Point | 92.0 °C | 198 °F | ASTM D1525 |

| Optical Properties | Metric | English | Comments |
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| Haze | 6.0 % @Thickness 0.0300 mm | 6.0 % @Thickness 0.00118 in | 2.5 BUR using 100% HP4024WN.; ASTM D1003 |

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| Gloss | 68 % | 68 % | 45°; Properties have been measured by producing 30 μ m film with 2.5 BUR using 100% HP4024WN.; ASTM D2457 |
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| Descriptive Properties | | | |
|------------------------|------|--|--|
| Anti block agent | True | | |
| Slip agent | True | | |