

# 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 <sup>3</sup>	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
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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
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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
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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
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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
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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 µm 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 µm 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 µm 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 µm 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
Haze	6.0 % @Thickness 0.0300 mm	6.0 % @Thickness 0.00118 in	2.5 BUR using 100% HP4024WN.; ASTM D1003

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