

# SABIC<sup>®</sup> HP4024N

HP4024N is a Low Density Polyethylene grade suitable for producing general-purpose films and it gives excellent processability and optical properties with good mechanical properties. HP4024N contains no slip and no 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% HP4024N.; 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% HP4024N.; ASTM D882
Film Elongation at Break, MD	265 %	265 %	Properties have been measured by producing 30 µm film with 2.5 BUR using 100% HP4024N.; ASTM D882
Film Elongation at Break, TD	600 %	600 %	Properties have been measured by producing 30 µm film with 2.5 BUR using 100% HP4024N.; 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% HP4024N.; 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% HP4024N.; 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% HP4024N.; ASTM D1709

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% HP4024N.; ASTM D882
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% HP4024N.; ASTM D882
1% Secant Modulus, MD	277 MPa	40200 psi	Properties have been measured by producing 30 µm film with 2.5 BUR using 100% HP4024N.; ASTM D882
1% Secant Modulus, TD	224 MPa	32500 psi	Properties have been measured by producing 30 µm film with 2.5 BUR using 100% HP4024N.; ASTM D882
<b>Thermal Properties</b>			
Vicat Softening Point	Metric	English	Comments
	92.0 °C	198 °F	ASTM D1525
<b>Optical Properties</b>			
Haze	Metric	English	Comments
	6.0 % @Thickness 0.0300 mm	6.0 % @Thickness 0.00118 in	2.5 BUR using 100% HP4024N.; ASTM D1003
Gloss	68 %	68 %	45°; Properties have been measured by producing 30 µm film with 2.5 BUR using 100% HP4024N.; ASTM D2457