

Technical Data Sheet



Petrothene NA442051

Ethylene Vinyl Acetate

Product Description

Petrothene NA442051 is a LDPE/EVA copolymer resin selected by customers for high impact/high clarity packaging and lamination applications.

Regulatory Status

For regulatory compliance information, see Petrothene NA442051 [Product Stewardship Bulletin \(PSB\)](#) and [Safety Data Sheet \(SDS\)](#).

Status	Commercial: Active
Availability	North America
Application	Bags & Pouches; Clarity Film; Film Wrap; Food Packaging Film; Lamination Film; Sealants; Secondary Packaging; Specialty Film
Market	Flexible Packaging
Processing Method	Blown Film; Cast Film

Typical Properties	Nominal Value	English Units	Nominal Value	SI Units	Test Method
Physical					
Melt Flow Rate, (190 °C/2.16 kg)	1.5	g/10 min	1.5	g/10 min	ASTM D1238
Vinyl Acetate Content	5.0	%	5.0	%	LYB Method
Film					
Dart Drop Impact Strength, F50	140	g	140	g	ASTM D1709
Tensile Strength at Break					
MD	3600	psi	24.8	MPa	ASTM D882
TD	2800	psi	19.3	MPa	ASTM D882
Tensile Elongation at Break					
MD	320	%	320	%	ASTM D882
TD	550	%	550	%	ASTM D882
1% Secant Modulus					
MD	19000	psi	131	MPa	ASTM D882
TD	24000	psi	165	MPa	ASTM D882
Elmendorf Tear Strength					
MD	160	g	160	g	ASTM D1922
TD	180	g	180	g	ASTM D1922
Thermal					
Vicat Softening Temperature	190	°F	88	°C	ASTM D1525
Optical					
Haze	4	%	4	%	ASTM D1003
Gloss, (45°)	75		75		ASTM D2457
Additive					
Slip	500	ppm	500	ppm	LYB Method
Antiblock	1000	ppm	1000	ppm	LYB Method

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Recipient Tracking #:
Request #: 7422466



Processing Parameters

Melt Temperature	330 - 380 °F	166 - 194 °C
Blow-Up Ratio	1.7 - 3.0 BUR	1.7 - 3.0 BUR

Notes

Film data obtained from sample produced on a 3 1/2" (89mm) blown film line, commercially available 8" (203 mm) die, 375°F (191°C) melt extrusion temperature, 2:1 BUR, 1.25 mil (32 micron) gauge, 0.025" die gap at 130 lbs/hr.

These are typical property values not to be construed as specification limits.

Processing Techniques

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

Company Information

For further information regarding the LyondellBasell company, please visit <http://www.lyb.com/>.

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