

# Exact™ 4160A

## Ethylene-based Plastomer Resin

### Product Description

Exact™ 4160A resin is an ethylene-based hexene plastomers produced using ExxonMobil's EXXPOL® Catalyst Technology. This resin is designed for blown film applications requiring high impact and puncture resistance. It also exhibits excellent heat sealing performance. TnPP is not intentionally added to Exact™ 4160A resin.

### General

Availability <sup>1</sup>	▪ Latin America	▪ North America
Applications	▪ Blown Film	
Form(s)	▪ Pellets	
Revision Date	▪ 10/23/2019	

Resin Properties	Typical Value (English)	Typical Value (SI)	Test Based On
Density	0.895 g/cm <sup>3</sup>	0.895 g/cm <sup>3</sup>	ASTM D1505
Melt Index <sup>2</sup> (190°C/2.16 kg)	1.1 g/10 min	1.1 g/10 min	ASTM D1238
Peak Melting Temperature	193 °F	90 °C	ExxonMobil Method

Thermal	Typical Value (English)	Typical Value (SI)	Test Based On
Vicat Softening Temperature	174 °F	79.0 °C	ExxonMobil Method
Crystallization Peak, T <sub>c</sub>	163 °F	73 °C	ExxonMobil Method

Film Properties	Typical Value (English)	Typical Value (SI)	Test Based On
Tensile Strength at Yield MD	650 psi	4.5 MPa	ASTM D882
Tensile Strength at Yield TD	550 psi	3.8 MPa	ASTM D882
Tensile Strength at Break MD	9600 psi	70 MPa	ASTM D882
Tensile Strength at Break TD	10000 psi	70 MPa	ASTM D882
Elongation at Break MD	420 %	420 %	ASTM D882
Elongation at Break TD	600 %	600 %	ASTM D882
Secant Modulus MD - 1% Secant	8100 psi	56 MPa	ASTM D882
Secant Modulus TD - 1% Secant	9100 psi	63 MPa	ASTM D882
Dart Drop Impact	1300 g	1300 g	ASTM D1709A
Elmendorf Tear Strength MD	150 g	150 g	ASTM D1922
Elmendorf Tear Strength TD	280 g	280 g	ASTM D1922
Puncture Force	18 lbf	81 N	ExxonMobil Method
Puncture Energy	68 in-lb	7.6 J	ExxonMobil Method

Optical Properties	Typical Value (English)	Typical Value (SI)	Test Based On
Gloss (45°)	89	89	ASTM D2457
Haze	1.2 %	1.2 %	ASTM D1003

### Legal Statement

Tris(nonylphenol)phosphite (TNPP) CAS# 26523-78-4 is not intentionally used by ExxonMobil in this product. Although this product is not routinely tested for its presence, based on product composition knowledge this substance is not expected to be present. However, the fact that this substance is not intentionally used by ExxonMobil in this product does not exclude that trace levels of this substance may be present as a result of the specific characteristics of the raw materials and/or of the manufacturing process.

This product is not intended for use in medical applications and should not be used in any such applications.

Contact your ExxonMobil Chemical Customer Service Representative for potential food contact application compliance (e.g. FDA, EU, HPFB).

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#### Processing Statement

Film (1.25 mil / 31.7 micron) made on a 2.5 inch blown film line having a 6 inch die with a 60 mil die gap at a 2.5:1 blow-up ratio and a melt temperature of 375–395°F (191–202°C).

#### Notes

Typical properties: these are not to be construed as specifications.

<sup>1</sup> Product may not be available in one or more countries in the identified Availability regions. Please contact your Sales Representative for complete Country Availability.

<sup>2</sup> Value reported is an estimate based on ExxonMobil's correlation from melt flow rate data measured at other standard conditions, based on ASTM D 1238.

For additional technical, sales and order assistance: [www.exxonmobilchemical.com/ContactUs](http://www.exxonmobilchemical.com/ContactUs)

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