ExxonMobil
Signature Polymers

Factsheet

Exact™ polyolefin elastomers

Boost flexibility and impact strength in molded and extruded products

Exact™ polyolefin elastomers (POE) can provide unique performance properties in consumer applications ranging from luggage to toys, tubing to rigid packaging.

Key benefits:

Flexibility
Offers enhanced flexibility and elasticity

Toughness
Provides room and low-temperature product strength

Impact performance
Enhances low-temperature impact resistance

Processability
Offers wide processing range through good compatibility with polyolefins

Exact™ polyolefin elastomers can help enhance flexibility and impact strength in molded and extruded applications. Produced through ExxonMobil's proprietary metallocene technology, these innovative polymer modifiers bridge the gap between elastomers and plastics, with rubber-like properties and the processability of plastic.

By expanding our plastomer portfolio with additional grades available globally, we continue to demonstrate our commitment to the industry and to help manufacturers meet increasingly demanding requirements in polyolefin applications.

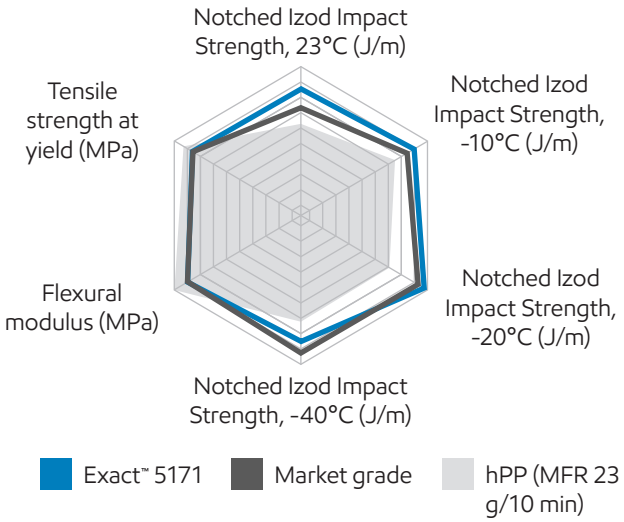
The Exact™ 5000 series offers a density range of

0.868-0.900 g/cm3

Discover the processing and product performance advantages provided by Exact™ polyolefin elastomers

Improved impact strength

In tests comparing three formulations — hPP (homopolypropylene) with 10% Exact™ 5171 and hPP with 10% market grade — the Exact™ POE improves impact strength at different temperatures.



All above tests are based on ExxonMobil methods.

Applications

Exact™ POE demonstrate excellent performance in polyethylene (PE), polypropylene (PP) and thermoplastic elastomer (TPE) modification, enabling use in a wide range of applications, such as:

- General compounding
- Juvenile
- Luggage
- Rigid packaging
- Cap & closures
- Stationary
- Soft grips
- Extrusion profile
- Drip tubing
- Hook and loop

Typical properties*

Properties	Exact™ 5061	Exact™ 5171	Exact™ 5371	Test based on
Melt index 190°C/2.16 kg g/10 min	0.50	1.0	5.0	ASTM D1238
Density g/cm3	0.868	0.868	0.868	ASTM D1505
Peak melting temperature °C (°F)	54 (129)	55.2 (131)	57.7 (136)	ExxonMobil method
Vicat softening point °C (°F)	55.8 (132)	54.2 (130)	50.3 (122)	ExxonMobil method
Flexural modulus - 1% secant MPa (psi)	13 (1900)	13 (1900)	13 (1850)	ExxonMobil method
Tensile strength MPa (psi)	>10 (>1500)	>7.8 (>1100)	>5.3 (>760)	ExxonMobil method
Elongation at break %	>800	>800	>800	ExxonMobil method

*Typical properties are typical of those obtained with normal production tolerance and do not constitute a specification. Variations that do not affect product performance are to be expected during normal manufacture and at different blending locations. The information contained herein is subject to change without notice. All products may not be available locally. For more information, contact your local ExxonMobil contact or visit www.exxonmobilchemical.com

What's new: ExxonMobil Signature Polymers

All our polymers are now positioned under a single portfolio brand: Signature Polymers. The aim is to simplify our product architecture and naming to improve portfolio navigation for you. We would like to stress that our commitment to high quality products remains the same, it is names that change. Grade slate of Exact™ polyolefin elastomers will keep unchanged.

Want to see what's changed in our portfolio? Go to **exxonmobilchemical.com/sptransform**

Contact us for more information: **exxonmobilchemical.com/exact**

ExxonMobil Signature Polymers

Bring your impossible