Fact sheet

Elevast™ polyolefin fluid

Premier polymer modifier

Energy lives here

ExxonMobil Elevast™ polymer modifiers are specialty hydrocarbon fluids designed to enhance the performance and processability of a broad range of polymer systems and applications. Elevast efficiently lowers Tg of polyolefins with carefully designed liquid polymer, with minimal change in crystalline properties and without requiring exquisite morphology control.

Other features include:

- **Applies to a broad range of polyolefins and applications**
- **Provides a novel balance of properties for new performance levels**
- **Capable of extending polymer property ranges**
- **Helps improve processing efficiency**
- **Easy to use**

Applications

Elevast polymer modifiers are:

- Well suited for use in technical applications requiring a wide range of service temperatures and improved mechanical properties
- Compatible with other common additives, including stabilizers, nucleating agents, inorganic fillers, flame retardants, colorants and release agents

Key benefits

- Colorless and odorless; exceptional high purity and low volatility
- Improved compression and tension set performance in EPDM formulations
- Improved flow for reducing processing time and lower energy requirements
- Improved surface appearance without sacrificing line speed
- Improved softness in hygiene applications
- Low viscosity grades for cold temperature and high toughness
- High viscosity grades for high temperature and long-term applications

Flash point as high as

299°C

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Tg reduction

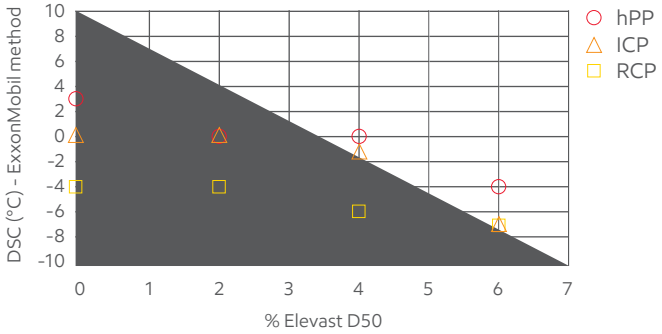
In proprietary ExxonMobil testing, Elevast demonstrates significant glass transition temperature depression. Elevast also has proved to enhance Tg-related properties, such as low-temperature performance, flexibility and toughness.

hpp: homo-polypropylene PP2252E4

ICP: impact copolymer PP7414

RCP: random copolymer PP9074MED

Glass transition temperature (Tg)

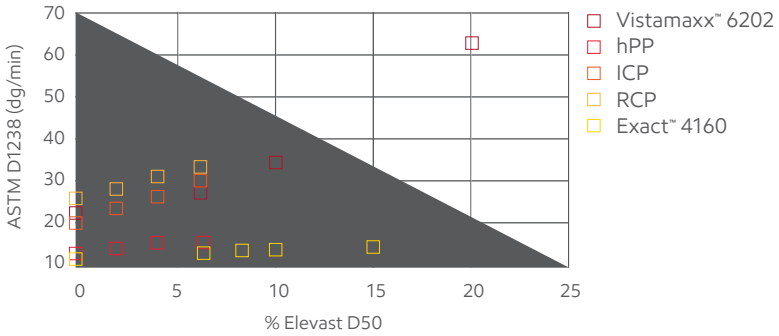


Lowers melt viscosity

Because Elevast modifiers are low MW liquids, they can decrease the viscosity of the molten polymer, or increases its melt flow rate, as shown in this ASTM D1238 test. Potential processing advantages include:

- Faster cycle/line speed
- Reduced energy consumption

Melt flow rate



Typical properties*

Nominal properties	Test method	Elevast D50	Elevast D10	Elevast D20
Molecular weight	GPC	2180	3970	6660
Glass transition temp, °C	ExxonMobil method	-80	-76	-74
Density at 23°C, g/cm³	ASTM D4052	0.84	0.85	0.85
Color, APHA	ASTM D5386	4 water white	4 water white	4 water white
Flash point, COC , °C	ASTM D92	277	277	299
Viscosity at 25°C, cP	ASTM D445	1,270	3,716	5,569

* 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.exxonmobil.com