



Vistamaxx™ performance polymers

Creating innovative solutions for polypropylene film

Film converters and packaging converters are creating innovative polypropylene solutions with Vistamaxx™ performance polymers:

- Improved film toughness for stronger packaging - Vistamaxx™ 6102FL
- Enhanced seal performance - Vistamaxx™ 3980FL and Vistamaxx™ 3588FL



Boost of toughness



Enhanced seal performance



Maximize production rate

Data and results presented herein apply specifically to the noted application under this factsheet. Your results may differ depending on factors such as operating conditions, equipment and materials used.

Stronger packaging

Adding Vistamaxx 6102FL to the core layer of a polypropylene film delivers improved mechanical properties for:

Improved film toughness

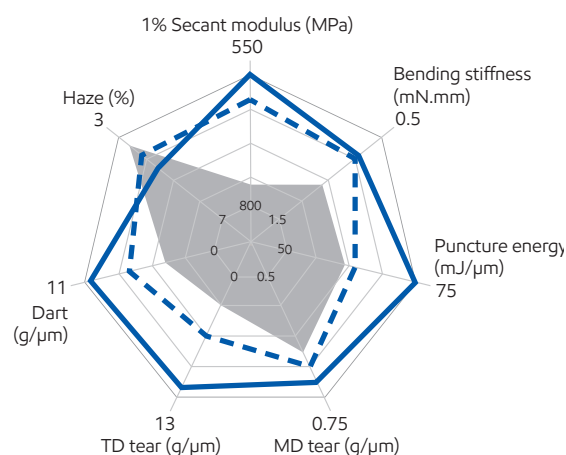
- High impact resistance
- Excellent packaging integrity at low temperatures
- Improved toughness of laminated structure

Soft touch

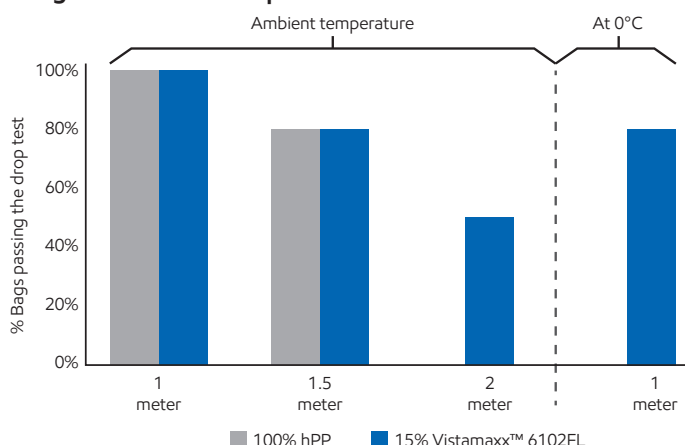
- Shelf appeal
- Product upgrade enabler

Excellent processability

- No impact on coefficient of friction (COF) control



Toughness at low temperature



Bag drop success rate at various height and temperature settings.

Table 1: toughness comparison

	Reference	10% Vistamaxx 6102FL	15% Vistamaxx 6102FL
30μm – 1/3/1	Reference	10% Vistamaxx 6102FL	15% Vistamaxx 6102FL
Skins A/C	RCP	RCP	RCP
Core	hPP	10% Vistamaxx 6102FL 90% hPP	15% Vistamaxx 6102FL 85% hPP

Properties

Properties	Vistamaxx 6102FL
MFR (@230°C/2.16kg (g/10min)	3
Density (g/cm³)	0.862
Elongation at break (%)	> 800%
Flexural modulus – 1% secant (MPa)	12.3

Enhanced seal performance

Using Vistamaxx™ 3980FL or Vistamaxx™ 3588FL to replace conventional sealants in a polypropylene film provides:

Low seal initiation temperature (~90°C)

- Fast packaging line speed
- Reliable packaging operations
- No drawback on metallization

Broad hot-tack window

- Robust packaging operation
- Cost savings from reduced failure

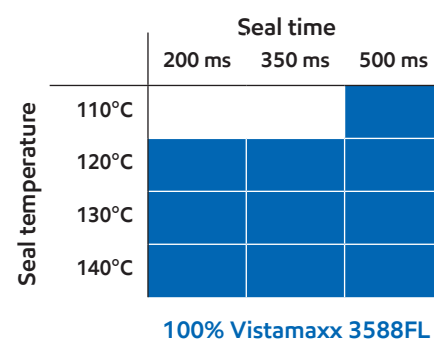
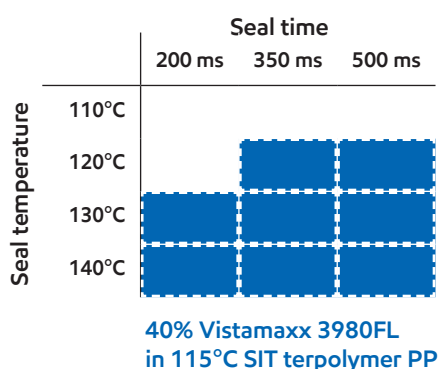
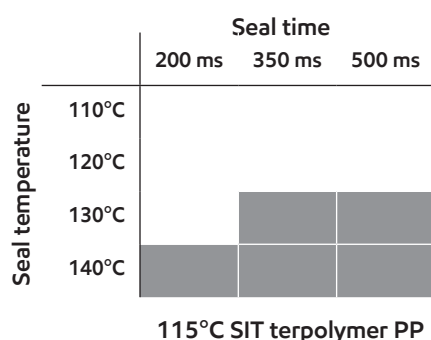
Hermeticity

- Reduced risk of leakers
- Airtight packaging

Excellent processability

- Easy COF control

Seal hermeticity performance



Each block represents complete hermetic packaging formed consistently, under corresponding seal time and seal temperature settings. Vistamaxx solutions bring improved hermetic seal performance under faster sealing time and lower seal temperature settings.

Table 2: seal performance comparison

30µm – 1/3/1	Reference	Vistamaxx 3980FL	Vistamaxx 3588FL
Sealant layer	115°C SIT terpolymer PP	40% 3980FL + 115°C SIT terpolymer PP	3588FL

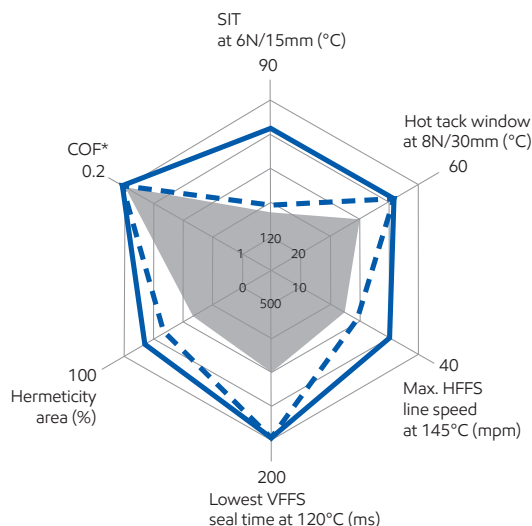
Properties	Vistamaxx 3980FL	Vistamaxx 3588FL
MFR (@230°C/2.16kg (g/10min)	8	8
Melting point 2 nd DSC peak (°C)	76°C	105°C

*COF measured on 30% 3980FL + 115°C SIT terpolymer PP

Test methods	Based upon	Test methods	Based upon
Melt flow rate (MFR)	ExxonMobil method	Puncture resistance	ASTM D-5748
Melting point 2nd DSC peak (°C)	ExxonMobil method	Haze	ASTM D-1003
Density (g/cm³)	ASTM D1505	Hot tack	ASTM F1921
Elongation at break (%)	ASTM D638	Seal strength	ASTM F2029
Flexural modulus – 1% secant (MPa)	ASTM D790	COF (film/film)	ASTM D1894
Elmendorf tear strength	ASTM D1922-06a	Bag drop testing	ASTM D5276-04
Film stiffness by two-point bending method	DIN 53121	HFFS packaging line performance	ExxonMobil method
Film thickness measurement unit Octagon GPA-C	ExxonMobil method	VFFS packaging line performance	ExxonMobil method
Tensile properties on film	ASTM D882	Seal hermeticity	ExxonMobil method
Impact resistance by free-falling dart : method A and B	ASTM D1709		

Contact us for more information:

exxonmobilchemical.com/vistamaxx





Bring your impossible

ExxonMobil Signature Polymers was born from the belief that people fuel progress. From automotive and construction to packaging, agriculture, industrial, and beyond, we leverage the scale and reach of ExxonMobil to deliver the insights and innovations that empower our diverse, global partners to take their businesses to new heights. We continuously work to provide the listen-first, service-driven, game-changing collaboration that unlocks opportunities for our partners and helps advance their sustainability and business goals.



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