

Outstanding high clarity film at high throughput rates

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Exceed™ and Enable™ metallocene polyethylene (mPE) resins allow converters to produce outstanding, high clarity packaging films at high throughput rates.

This patented coextrusion technology uses Exceed mPE 1018 resin in the outer layers and Enable mPE 27-03 resin in the core layer. This allows converters to produce packaging films which combine outstanding optical properties, excellent mechanical and sealing properties.

Delivered attributes	Derived benefits & potential value
Outstanding optical properties	High clarity for product promotion and branding opportunities
Excellent mechanical properties	Improve package integrity performance (less damage and waste)
Outstanding sealing performance	Faster sealing allows higher packaging line speed
Resource efficiency through downgauging opportunities for thinner, stronger films	Downgauging opportunities for thinner, stronger films Better package integrity Less material use Less damage, less waste

Exceed™ and Enable™ mPE resin-based films are ideal for use in:

- Lamination packaging film
- Bread bags film
- Produce bags film
- Blown stretch film

Increased output

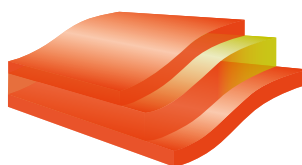
Enable mPE 27-03 resin is easier to process and provides converters with the opportunity to increase output. Tests have shown that by using 20% of Enable mPE 27-03 resin, film output can be increased by 20% compared with using Exceed mPE 1018 resin series in the core.

Running Enable mPE 27-03 resin in the core layer at high output yields films with outstanding optical properties, and excellent mechanical and sealing properties:

- Tear remains very high
- Outstanding dart impact strength
- High tear strength

Figure 1:

Typical three-layer film structure resin



Thickness: 50 μm
Layer distribution: 1/2/1

100% Exceed mPE 1018

80% Exceed mPE 1018

20% Enable mPE 27-03

100% Exceed mPE 1018

film properties		typical value	test method (based on)	unit
Tensile strength at break	MD/TD	51/47	ASTM D 882	MPa
1% Secant modulus	MD/TD	192/206	ASTM D 882	MPa
Elmendorf tear strength	MD/TD	10.3/15.9	ASTM D 1922	g/ μm
Dart drop impact (A/Face)		>22	ASTM D 1709	g/ μm
Haze		4.6	ASTM D 1003	%
Gloss (45° angle)		84	ASTM D 2457	%
Clarity		85	ASTM D 1746	%

Polymer properties	Exceed mPE 1018 resin	Enable mPE 27-03 resin	Test method (based on)	Unit
Melt index	1.0	0.3	ExxonMobil	g/10 min
Density	0.918	0.927	ExxonMobil	g/cm ³

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E0715-857E49

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