Exceed[™] S performance polyethylene Fact sheet

ExconMobil



Design durable non-laminated pouches and bags with Exceed™ S performance polyethylene

Creating stiffer, tougher, more durable flexible packaging often requires multiple resins, more blending, and sacrifices in conversion efficiency. What if your resin did more? Exceed S PE delivers simplicity without compromise. Now you can get stiffness and toughness with less blending, and resin solutions that streamline film and package making operations while improving package durability.



Exceed S performance PE resins offer two significant advantages in non-laminated coex pillow pouches used to package solid, liquid and frozen food as well as institutional and industrial contents:

- An increase in film and package toughness delivered with fewer resins
- A significant increase in core layer stiffness/toughness enabling skin layer and finished package optimization

Beneficial attributes

- Outstanding toughness at high stiffness
- Single-resin solution for PE + lean HDPE blends
- Enhanced bag drop performance

Value

- Simpler formulations reduce operational scrap/waste
- More durable packaging reduces failures, product loss and complaints

Exceed[™] S performance polyethylene delivers comprehensive improvements in film and package performance

Exceed S 9272ML PE maximizes bag drop survivability and dart drop impact, the two key measures of packaging toughness and durability.

Exceed S 9243ML PE also enables a more durable solution but delivers both simplification and package optimization benefits. Specifically, the lean HDPE blend used in the core has been replaced with a single Exceed S resin and the stiffness improvement enabled the 0.916d resin used in the sealant skin to be replaced with the 0.912d Exceed 1012 resin, which further improves toughness and enhances sealing.

Exceed S 9333ML PE delivers the lowest melt pressure and temperature, and has been designed to help maximize the toughness and stiffness of films produced on pressure-limited blown film lines.



Melt index
(g/10 min)Density
(g/cm³)Slip /
anti-blockExceed S 9272ML0.800.920No

0.85

2.0

0.926

0.925

No

No

Exceed S 9243ML

Exceed S 9333ML

Bag drop - VFFS bags Failure on the wall of the bags (PE films, progressive drop 1-3 m, 20 bag, content = 2 L water) 60 % survival 40 20 0 Exceed S Exceed S Reference 9272ML 9243MI 9333MI 60µm 1/3/1 mLL C8 Exceed 1012 Exceed 1012 Exceed 1012 Sealant (1.0; 0.916)skin¹ + 10% LD150 + 10% LD150 + 10% LD150 + 10% LD150 ZN C8 Exceed S Exceed S Exceed S (1.0; 0.920) 9272ML4 Core² 9243ML 9333ML + 15% HDPE³ + 10% HDPE³ Skin¹ Exceed 1018

1. Skins contain 1% slip + 1.5% anti-block

. Core contains 1% slip

 Film formulation designed to have same average film density with less HDPE content (around 0.921g/cm3)

The Exceed S 9272ML resin had an MI of 0.65 g/10 min versus the product target of 0.80 g/10 min at 190°C & 2.16kg.

Data from tests performed by or on behalf of ExxonMobil. MAC202007.0106-04.

Test item	Test method
Melt Index (MI)	ExxonMobil test method following principles of ASTM D-1238 or supplier datasheet
Density	ExxonMobil test method following principles of ASTM D-4703 and ASTM D-1505 or supplier datasheet
Dart drop impact resistance by free falling dart	ExxonMobil test method following principles of ASTM D-1709
Tensile properties on film	ExxonMobil test method following principles of ASTM D-882-18
Puncture	ExxonMobil test method

Why ExxonMobil PE? Why today?

tomorrow's **performance** today

What some might view as solutions that will only happen in the future, ExxonMobil PE is making possible today – through our innovative and reliable products, collaborative approach, technology leadership and support, and our unmatched global supply and resources. Learn more about how we're helping our customers create solutions with sustainability benefits. Why wait for tomorrow to advance your business today? Contact your ExxonMobil PE representative and begin experiencing tomorrow's performance today in your non-laminated pillow pouch films.

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