



POLYETHYLENE (PE) FILMS

Addressing Market Needs with Sustainable Solutions that Deliver

Kraton offers a wide array of polymers for packaging solutions that provide multiple benefits. Kraton's versatile polymers help the plastics industry's transition to incorporate recyclable materials and high-performance lightweight designs while preserving the durability and aesthetics of the package.

Kraton polymers are high-performing additives that are designed to meet the industry's most demanding needs for efficient modification of various PE films, delivering excellent properties and enabling thin films with proven performance.

FILM BENEFITS:

HDPE

- » Increases tear strength at low loading level
- » Enables significant improvement of impact strength to avoid breakages
- » Enables usage of a flexible film vs rigid packaging

LDPE

- » Enables recyclable alternative to plasticized PVC film
- » Improves up to 50% dart impact strength at low loading levels
- » Increases stress crack resistance by 10x
- » Contributes to rubbery, silky-feel films at higher Kraton SBS loadings (35% wt)

LLDPE

- » Enables significant improvement of dart impact resistance
- » Enhances the sealing performance over a wide range of temperatures
- » Supports good performance with low loading levels

These benefits have been achieved in a formulation of **2 % w.t. Kraton SBS** combined with **HDPE** in a blown film.

Benefits have been observed in a formulation of **6 % w.t. Kraton SBS** combined with **LDPE** in a cast or blown film.



Binary Blends of Kraton D1102 Polymer with LDPE Film

Composition, %w

LDPE	100	98	96	94	90	80	50
Kraton D1102	-	2	4	6	10	20	50

Properties¹, %w

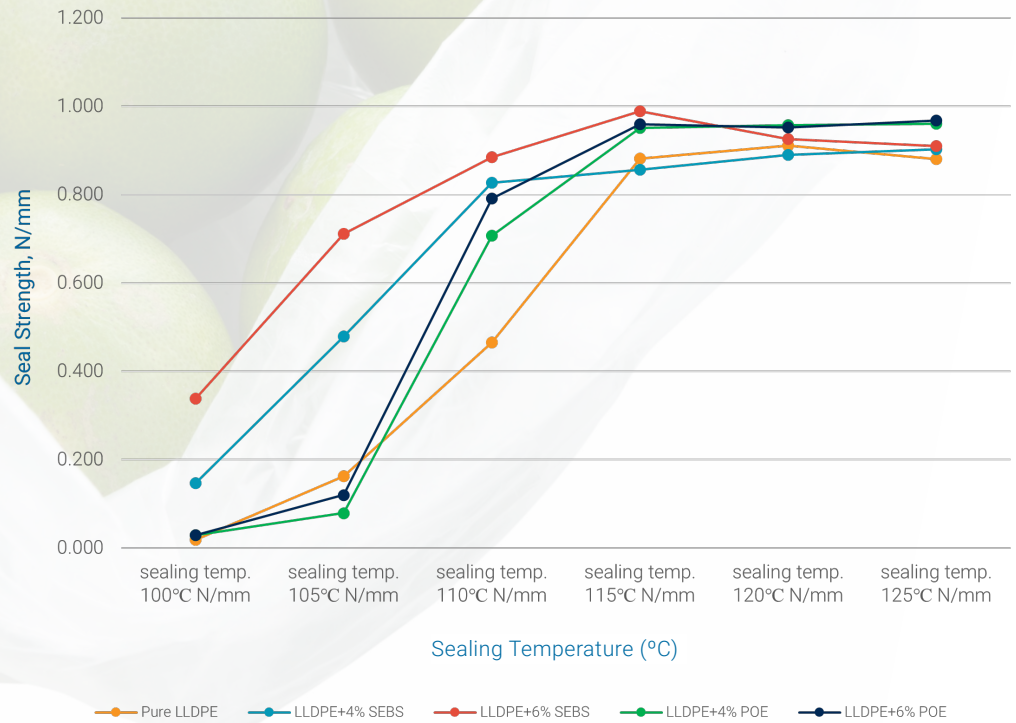
Dart Impact Strength ² , g	235	250	275	295	350	570	>1000
Tensile Impact Strength, ft-lb/In ² (KJ/m ²)	170 (109)	195 (125)	200 (128)	230 (147)	270 (173)	335 (215)	665 (426)
Yield Stress, PSI (MPa)	1450 (10.0)	1450 (10.0)	1450 (10.0)	1380 (9.5)	1350 (9.3)	1205 (8.3)	800 (5.5)
Yield Strain, %	22	22	23	24	25	25	25
Stress Crack Resistance, hours ³	4	14	25	40	50	70	-

1. Measured on blown 4 mil (0.1 mm) film

2. Using 2" (5.08 cm) dia dart, 60" (774 cm) drop height

3. 8 mil (0.2 mm) film welded together and immersed under stress in a 2% detergent solution of 40°C. Time is given for 50% failure.

Heat Sealing Properties



For Kraton's solutions for recycled polyolefins, visit www.cirkularplus.com.

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