



Stretching the Limits

Polymers in Elastic Films



Soft to the Touch, Strong to the Finish

Kraton produces a series of SIS and SBS polymers designed for elastomeric film production. They combine the unique characteristics of low modulus and low hysteresis sets, not available from other thermoplastic polyurethanes, copolyesters or EVA based films.

Films produced using Kraton polymers provide many benefits, are very soft to the touch and can be bonded to polyolefins either thermally or adhesively. The low modulus makes them the material of choice for elastic structures in a wide range of products.

Applications:

Hygiene

- » Diaper Ear Tabs
- » Stretch Side Panels
- » Waistbands
- » Elastic Attachment Adhesives

Elastic

- » Cuffs
- » Closures
- » Straps
- » Device Covers



PROCESSING OF KRATON POLYMER PRODUCTS FOR FILMS

Key factors for selecting a polymer for elastic films are product gauge, uniformity, and tensile properties. Films that use Kraton polymers can typically be processed on the same equipment as polyolefin film without modifications.

Kraton's film-grade products are formulated without slip and anti-blocking agents. The film manufacturer must incorporate suitable anti-blocking agents when processing these film-grade materials. Our polymers are supplied as free-flowing pellets and do not require drying before processing.



Features:

- » Soft
- » Breathable
- » Enhanced Stretch and Recovery
- » Bidirectional Stretch

Benefits:

- » Comfortable
- » Cool
- » Good "On/Off"
- » Maintains Shape for Fit



ELASTIC FILMS: FOCUS ON KRATON

	Kraton	D1114		D1117		D1164		DX405	
Chemistry	Units	SIS		SIS		SIS		SBS	
Polystyrene Content (PSC)	%	19		17		29		24	
MFR (200°C/5 kg)	g/10	10		33		12		11	
Hardness, ShA (30 s) ¹	-	48		33		53		55	
Tensile Properties²:		MD	TD	MD	TD	MD	TD	MD	TD
Modulus 100%	MPa	0.7	0.6	0.5	0.5	2.2	0.9	1.8	1.7
Modulus 300%	MPa	1.1	0.9	0.8	0.7	2.6	1.3	2.5	2.3
Tensile Strength	MPa	16	17	12	11	21	24	22	21
Elongation at Break	%	1145	1205	1130	1180	1260	1230	1450	1300
Hysteresis at 100% Elongation ² : Set After 1 Cycle	%	12	12	4	8	4	9	9	n.m.
¹ Measured on stack of 3 x 2mm compression molded plaques ² Measured on 100 µm thick extrusion cast film * Data is indicative		Soft Stretch, High Strength, Excellent Elasticity		High Flow, Soft Stretch, Excellent Elasticity, 33% diblock		High Strength, Excellent Elasticity			

KRATON™

SUSTAINABLE SOLUTIONS.
ENDLESS INNOVATION.™



KRATON CORPORATION

For more information, visit our website at www.kraton.com or email info@kraton.com.

U.S.A. Headquarters
Houston, Texas

Asia Pacific
Shanghai, China

Europe, Middle East, Africa
Almere, The Netherlands

India/South East Asia
Mumbai, India



DISCLAIMER

The information herein is for general information purposes only. While it is believed to be reliable, but no representations, guarantees or warranties of any kind are made as to its completeness, accuracy, reliability, or suitability for applications or the results to be obtained therefrom. Kraton disclaims any and all liability for damages or injuries arising from the use of this information. Nothing contained herein is to be considered permission, recommendation, or an inducement to use any Kraton product in any specific application or in conflict with any existing intellectual property rights.

*Kraton and the Kraton logo are trademarks of Kraton Corporation or its affiliates.

©2023 Kraton Corporation