

## Chevron Phillips K-Resin® DK11 Styrene-Butadiene Copolymer, Film Grade

Category : Polymer , Film , Thermoplastic , Styrene-Butadiene , Styrene-Butadiene Copolymer, SBC

### Material Notes:

Styrene-Butadiene Copolymer. Properties below based on 1 mil ( 0.025 mm) film; 2.5:1 Blow Up Ratio; 35 mil (0.90 mm) die gap. Customer Benefits: Provides the same high performance film properties as KR10 with added thermal stability and a broader processing window. Film produced has excellent clarity, high surface gloss, good heat sealability, good toughness, good stiffness, and high permeation. Has a puncture value of 1.2 J as per ASTM D3763. Has a crease retention of 99% as per TAPPI T446-B. Also has a moisture vapor transmission value of 0.6 g mm/m<sup>2</sup> 24hr as per ASTM F1249 at 23°C. Film shrinkage is 67% MD and 48% TD. Applications: Major applications include medical packaging, produce packaging, skin packaging, twist wrap, lidstock film, labeling film, decorative films, industrial films, shrink wrap, overwrap film, barrier film, and tamper evident packaging. Processing Recommendations: Blown Film: Melt temperature between 166-193°C recommended. Cast film: Melt temperature between 193-216°C recommended. High shear and restrictive type screws tend to degrade the melt. Specification Data: FDA Regulation 21 CFR 177.1640. Suitable for food contact. EEC Directive 90/128/EEC and all its amendments. USP Class VI-50. UL 94HB. Data provided by Chevron Phillips Chemical Company LP.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Chevron-Phillips-K-Resin-DK11-Styrene-Butadiene-Copolymer-Film-Grade.php](http://www.lookpolymers.com/polymer_Chevron-Phillips-K-Resin-DK11-Styrene-Butadiene-Copolymer-Film-Grade.php)

Physical Properties	Metric	English	Comments
Density	1.01 g/cc	0.0365 lb/in <sup>3</sup>	ASTM D792
Moisture Vapor Transmission	0.600 cc-mm/m <sup>2</sup> -24hr-atm	1.52 cc-mil/100 in <sup>2</sup> -24hr-atm	@ 23°C; ASTM F1249
Oxygen Transmission	173 cc-mm/m <sup>2</sup> -24hr-atm	439 cc-mil/100 in <sup>2</sup> -24hr-atm	ASTM D3985
Melt Flow	7.5 g/10 min	7.5 g/10 min	Condition G; ASTM D1238

Mechanical Properties	Metric	English	Comments
Film Tensile Strength at Yield, MD	26.0 MPa	3770 psi	2 in per min; ASTM D882
Film Tensile Strength at Yield, TD	16.0 MPa	2320 psi	2 in per min; ASTM D882
Film Elongation at Break, MD	65 %	65 %	ASTM D882
Film Elongation at Break, TD	175 %	175 %	ASTM D882
Secant Modulus, MD	1.276 GPa	185.1 ksi	at 1%; ASTM D882
Secant Modulus, TD	0.883 GPa	128 ksi	at 1%; ASTM D882
Elmendorf Tear Strength, MD	0.0217 g/micron	0.550 g/mil	ASTM D1922
Elmendorf Tear Strength, TD	0.0272 g/micron	0.690 g/mil	ASTM D1922
Dart Drop Test	345 g	0.761 lb	26 in; ASTM D1709

Optical Properties	Metric	English	Comments
Haze	2.0 %	2.0 %	ASTM D1003
Gloss	129 %	129 %	45°; ASTM D2457
Transmission, Visible	94 %	94 %	ASTM D1003

Processing Properties	Metric	English	Comments
Melt Temperature	166 - 193 °C	331 - 379 °F	Blown Film

## Contact Songhan Plastic Technology Co.,Ltd.

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