

## EVALCA EVAL® EF-E Ethylene Vinyl Alcohol Copolymer Film (discontinued \*\*)

Category : Polymer , Film , Thermoplastic , Ethylene Vinyl Alcohol (EVOH)

### Material Notes:

44 mol % Ethylene. Non oriented type film; property values for 20 µm film. Data provided by EVALCA. Applications: EVOH is used in packaging applications because of its outstanding gas barrier properties. EVAL™ is now produced as a part of the Kuraray product line.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_EVALCA-EVAL-EF-E-Ethylene-Vinyl-Alcohol-Copolymer-Film-nbspdiscontinued-.php](http://www.lookpolymers.com/polymer_EVALCA-EVAL-EF-E-Ethylene-Vinyl-Alcohol-Copolymer-Film-nbspdiscontinued-.php)

Physical Properties	Metric	English	Comments
Moisture Absorption at Equilibrium	2.5 %	2.5 %	Equilibrium at 65% RH
	2.5 %	2.5 %	65% RH
Water Absorption at Saturation	5.0 %	5.0 %	100% RH
Moisture Vapor Transmission	0.720 cc-mm/m <sup>2</sup> -24hr-atm	1.83 cc-mil/100 in <sup>2</sup> -24hr-atm	40°C, 90% RH
Oxygen Transmission	0.0300 cc-mm/m <sup>2</sup> -24hr-atm	0.0762 cc-mil/100 in <sup>2</sup> -24hr-atm	20°C; 65% RH; Permeability increases significantly at higher moisture content.
Thickness	15.2 microns	0.600 mil	

Mechanical Properties	Metric	English	Comments
Film Elongation at Break, MD	260 %	260 %	10%/min.; ASTM D638
Film Elongation at Break, TD	190 %	190 %	10%/min.; ASTM D638
Secant Modulus, MD	2.00 GPa	290 ksi	Youngs Modulus, ASTM D638, 10%/min.
Secant Modulus, TD	1.90 GPa	276 ksi	Youngs Modulus, ASTM D638, 10%/min.
Elmendorf Tear Strength MD	460 g	460 g	ASTM D638
Elmendorf Tear Strength TD	440 g	440 g	ASTM D638
Elmendorf Tear Strength, MD	30.2 g/micron	767 g/mil	0.6 mil; ASTM D638
Elmendorf Tear Strength, TD	28.9 g/micron	733 g/mil	0.6 mil; ASTM D638
Film Tensile Strength at Break, MD	70.0 MPa	10200 psi	10%/min.; ASTM D638
Film Tensile Strength at Break, TD	44.0 MPa	6380 psi	10%/min.; ASTM D638

Thermal Properties	Metric	English	Comments
	80.0 µm/m-°C	44.4 µin/in-°F	

CTE linear Thermal Properties	Metric @ Temperature 20.0 °C	English @ Temperature 68.0 °F	Comments Estimated by MatWeb from similar grades
	130 $\mu\text{m}/\text{m}\cdot\text{°C}$	72.2 $\mu\text{in}/\text{in}\cdot\text{°F}$	Estimated by MatWeb from similar grades
	@Temperature 100 °C	@Temperature 212 °F	
Specific Heat Capacity	2.40 J/g·°C	0.574 BTU/lb·°F	Estimated by MatWeb from similar grades
Thermal Conductivity	0.340 W/m·K	2.36 BTU-in/hr-ft <sup>2</sup> -°F	For EVAL F101
Melting Point	164 °C	327 °F	DSC

Optical Properties	Metric	English	Comments
Haze	1.7 %	1.7 %	65% RH
Gloss	90 %	90 %	65% RH

Electrical Properties	Metric	English	Comments
Electrical Resistivity	1.20e+13 ohm-cm	1.20e+13 ohm-cm	
Surface Resistance	2.10e+15 ohm	2.10e+15 ohm	
Dielectric Constant	5.5	5.5	Frequency Not Specified
Dissipation Factor	0.22	0.22	Frequency Not Specified

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China