

EVALCA EVAL® EP-F104BW Ethylene Vinyl Alcohol Copolymer Resin (discontinued **)

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

Material Notes:

32 mol % Ethylene. Data provided by EVALCA. Applications: Cast film, blow molding, tubes, coex coating. 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-EP-F104BW-Ethylene-Vinyl-Alcohol-Copolymer-Resin-nbspdiscontinued-.php

| Physical Properties | Metric | English | Comments |
|------------------------------------|--|---|--|
| Density | 1.19 g/cc | 0.0430 lb/in ³ | ASTM D1505 |
| Moisture Absorption at Equilibrium | 2.2 % | 2.2 % | Equilibrium at 50% RH |
| | 2.2 % | 2.2 % | 50% RH |
| Water Absorption at Saturation | 8.5 % | 8.5 % | 100% RH |
| Moisture Vapor Transmission | 1.50 cc-mm/m ² -24hr-atm | 3.81 cc-mil/100 in ² -24hr-atm | 40°C, 90% RH |
| Oxygen Transmission | 0.00800 cc-mm/m ² -24hr-atm | 0.0203 cc-mil/100 in ² -24hr-atm | 20°C; 65% RH; Permeability increases significantly at higher moisture content. |
| Melt Flow | 4.0 g/10 min | 4.0 g/10 min | ASTM D1238 |
| | @Load 2.16 kg, Temperature 190 °C | @Load 4.76 lb, Temperature 374 °F | |
| | 10.5 g/10 min | 10.5 g/10 min | ASTM D1238 |
| | @Load 2.16 kg, Temperature 210 °C | @Load 4.76 lb, Temperature 410 °F | |

| Mechanical Properties | Metric | English | Comments |
|------------------------------------|----------|-----------|--------------------------------------|
| Hardness, Rockwell M | 97 | 97 | ASTM D785 |
| Tensile Strength, Yield | 74.0 MPa | 10700 psi | 10%/min. ASTM D638 |
| Film Elongation at Break, MD | 230 % | 230 % | Orientation not specified; ASTM D882 |
| Modulus of Elasticity | 2.60 GPa | 377 ksi | Youngs Modulus, ASTM D638, 10%/min. |
| Film Tensile Strength at Break, MD | 72.0 MPa | 10400 psi | Orientation not specified; ASTM D882 |

| Thermal Properties | Metric | English | Comments |
|--------------------|--------------|----------------|----------|
| CTE, linear | 50.0 µm/m-°C | 27.8 µin/in-°F | Below Tg |

| Thermal Properties | Metric | English | Comments |
|---|-------------|------------------------------------|-------------------------|
| Specific Heat Capacity | 2.40 J/g-°C | 0.574 BTU/lb-°F | |
| Thermal Conductivity | 0.340 W/m-K | 2.36 BTU-in/hr-ft ² -°F | For EVAL F101 |
| Melting Point | 181 °C | 358 °F | DSC |
| Deflection Temperature at 0.46 MPa (66 psi) | 100 °C | 212 °F | For EP-F101 |
| Vicat Softening Point | 173 °C | 343 °F | For EP-F101 |
| Glass Transition Temp, Tg | 69.0 °C | 156 °F | Dynamic Viscoelasticity |

| Optical Properties | Metric | English | Comments |
|--------------------|--------|---------|-----------------------|
| Haze | 1.4 % | 1.4 % | Film; ASTM D1003 |
| Gloss | 90 % | 90 % | 45°; Film; ASTM D2457 |

| Electrical Properties | Metric | English | Comments |
|------------------------|-----------------|-----------------|-------------------------|
| Electrical Resistivity | 4.70e+12 ohm-cm | 4.70e+12 ohm-cm | |
| Surface Resistance | 1.90e+15 ohm | 1.90e+15 ohm | |
| Dielectric Constant | 5.5 | 5.5 | Frequency Not Specified |
| Dissipation Factor | 0.21 | 0.21 | Frequency Not Specified |

| Processing Properties | Metric | English | Comments |
|-----------------------|-----------|-----------|----------|
| Melt Temperature | <= 240 °C | <= 464 °F | |

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

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