



EVASIN EV3851V DATA SHEET

38 mole% Ethylene Vinyl Alcohol Copolymer

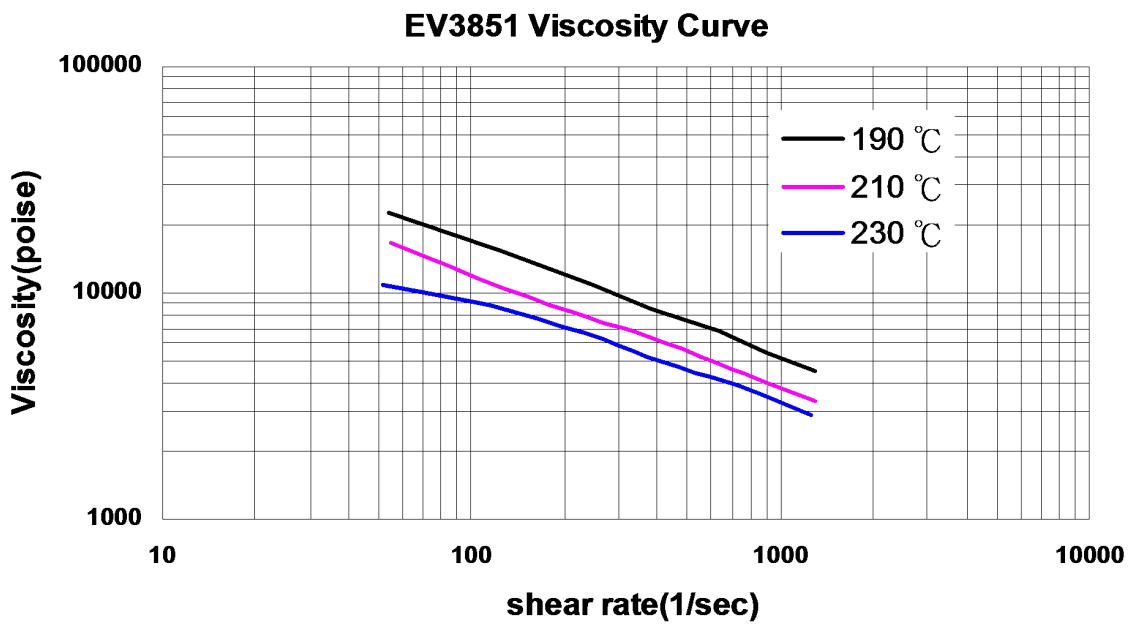
Application

EV3851V with low melt flow index is a standard grade mainly designed for co-extrusion film application. This resin shows excellent balance among barrier to gases as well as processing thermal stability. This resin can also be recommended for sheet / thermoforming and shrink application.

General Property

Item	unit	Test Method	Value
Mechanical Properties			
Tensile strength at yield	MPa	ISO 527	73.9
Tensile strength at break	MPa	ISO 527	29.5
Elongation at break	%	ISO 527	16.2
Young's modulus	MPa	ISO 527	4,010
Flexural modulus	MPa	ISO 178	3,800
Flexural strength	MPa	ISO 178	112
Charpy impact strength	KJ/m ²	ISO 179-1	2.3
Rockwell hardness	HRM	ISO 2039-2	89
Density	g/cm ³	ISO 1183	1.16
Thermal Properties and Melt Characteristics			
Melting point	°C	ISO 11357	173
Crystalization point	°C	ISO 11357	151
Glass transition point	°C	ISO 11357	57
Vicat Softening Point	°C	ISO 306	163
Melt flow index	g/10min(2160g,190°C)	ISO 1133	1.8
	g/10min(2160g,210°C)	ISO 1133	3.9
Gas Barrier Properties			
O ₂ Transmission Rate at 20°C 0%RH at 20°C 65%RH at 20°C 85%RH	cm ³ .20µm/m ² .24Hrs.atm	ISO 14663-2	0.5
			0.7
			2
Water Vapor Transmission Rate	cm ³ .30µm/m ² .24Hrs.atm at 40°C 90%RH	ASTM E96-E	28

Melt Viscosity



Example of Processing Temperature Profile

	Barrel 1	Barrel 2	Barrel 3	Barrel 4	Barrel 5	Adapter	Die
EV3851V	175	195	205	210	215	210	210

All data, descriptions and information given herein are carefully evaluated in our analytical department or by reliable polymer institutes and only mean typical characteristics; they are not elements of our COA, but should assist users for quick technical setups. Formulation, processing and final application of end-products based on EVASIN EV3851V are customers' responsibility only.

Furthermore, users are encouraged to check for the patent situation concerning their projected end products.