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## EVASIN EV-4451F DATA SHEET

44 mole%Ethylene Vinyl Alcohol Copolymer

Item	unit	Test Method	Value
<b>Mechanical Properties</b>			
Tensile strength at yield	MPa	ISO 527	66
Tensile strength at break	MPa	ISO 527	24.4
Elongation at break	%	ISO 527	23.1
Young's modulus	MPa	ISO 527	3670
Flexural modulus	MPa	ISO 178	3240
Flexural strength	MPa	ISO 178	91.4
Charpy impact strength	KJ/m <sup>2</sup>	ISO 179-1	2.3
Rockwell hardness	HRM	ISO 2039-2	94
Density	g/cm <sup>3</sup>	ISO 1183	1.14
<b>Thermal Properties and Melt Characteristics</b>			
Melting point	°C	ISO 11357	165
Crystalization point	°C	ISO 11357	145
Glass transition point	°C	ISO 11357	54
Vicat softening point	°C	ISO 306	154
Melt flow index	g/10min(2160g,190°C)	ISO 1133	1.8
	g/10min(2160g,210°C)	ISO 1133	--
<b>Gas Barrier Properties</b>			
O <sub>2</sub> Transmission Rate at 20°C 0%RH at 20°C 65%RH at 20°C 85%RH	cm <sup>3</sup> .20µm/m <sup>2</sup> .24Hrs.atm	ISO 14663-2	0.8
			1.8
			3.4
Water Vapor Transmission Rate	cm <sup>3</sup> .30µm/m <sup>2</sup> .24Hrs.atm at 40°C 90%RH	ASTM E96-E	19

## **Example of Processing Temperature Profile**

	Barrel 1	Barrel 2	Barrel 3	Barrel 4	Barrel 5	Adapter	Die
EV4451F	170	190	200	205	210	200	200

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 EV-4451F are customers' responsibility only.

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