

## Evolve® (Blown Film-Extrusion) Product Data Sheet

Testing Items		Unit	Testing Method *1			Film (Blown)						Extrusion Molding							
			JIS K	ISO	ASTM	SP2320	SP2320H	SP2520	SP2520H	SP2510	SP3010	SP4020	SP1071C	SP2030	SP2530S				
General Physical Properties	Melt Index	g/10min	7210	1133		1.9	1.9	1.9	1.9	1.5	0.8	1.8	8	2.5	2.6				
	Density	kg/m <sup>3</sup>	7112	1183		920	920	925	925	923	926	937	910	922	924				
Mechanical Properties	Tensile Stress At Yield	MPa				-	-	-	-	-	13	17	-	-	-				
	Tensile Stress At Break	MPa	7161 7162	527-1 527-2		19	19	20	20	20	>25	>24	>15	18	18				
	Elongation At Break	%				350	350	350	350	350	>500	>500	>500	390	390				
	Flexus Modulus	MPa	7171	178		240	240	320	320	260	490	560	150	260	240				
	Charpy Impact Strength	kJ/m <sup>2</sup>	7111	179-1		NB	NB	NB	NB	NB	NB	NB	NB	NB	NB	NB			
	Shore D Hardness	-	7215	868		55	55	56	56	56	54	58	51	56	56				
Chemical Properties	E.S.C.R	hours	-	-	D1693	>1000	>1000	>1000	>1000	>1000	>1000	>1000	>1000	>1000	>1000				
Thermal Properties	Vicat Softening Point	°C	7206	306		101	101	105	105	103	106	117	87	101	101				
	Melting Point	°C	7121	11357-3		118	118	122	122	121	124	127	112	122	122				
Characteristics						Low Heat Seal Property	Low Heat Seal Property	Stiffness	Stiffness	Stiffness	Stiffness	Stiffness	Low Heat Seal Property	Cross-linking Property	Stiffness				
						Clarity	Clarity	Optical Property	Optical Property	High Speed Mouldability	High Speed Mouldability	High Speed Mouldability	High Speed Mouldability	High Speed Mouldability	High Speed Mouldability	High Speed Mouldability	High Speed Mouldability		
						High Speed Mouldability	High Speed Mouldability	High Speed Mouldability	High Speed Mouldability										
Main Application						Lamination Film	Lamination Film	Lamination Film	Lamination Film	Shopping Bag	Heavy Duty Bag	Lamination Film	Food Packaging	Electrical Wire	Pipe				
						Industrial Film	Industrial Film	Industrial Film	Industrial Film	Industrial Film		Industrial Film	Liquid Packaging						
						Agricultural Film	Agricultural Film	Agricultural Film	Agricultural Film	Medium Size Packaging									
						Water Quenching Blown Film	Water Quenching Blown Film	Water Quenching Blown Film	Water Quenching Blown Film										

\*1) Specimen preparation according to JIS K7151 (ISO293) and 7152 (ISO294) (Load at 2.16kg)  
Melt Index above 1g/10min: Injection molding specimen  
Melt Index below 1g/10min: Pressed sheet specimen

- ◇ Statistics shown in the information are typical data tested under specific conditions
- ◇ Applications usage that is mentioned in the information might not be the usage of specified grade in the end product.
- ◇ Pertaining to the usage and application recommendation information, please note the rights of the patentees.
- ◇ In the usage of medical utensile and medicinal products, please be advised to have further consultation.
- ◇ Please understand that the information provided herein is subjected to change without prior notice.