



High Density Polyethylene (HDPE) -- Drum & Blow Grade Data Sheets

Grade			Drum		Blow		
			7001	7501	8003	8003H	9003
Properties	Unit	Test Method					
Melt Index $MI_{2.16}$	g/10min	ASTM D1238	0.06	0.02	0.25	0.30	0.25
Melt Index $MI_5/MI_{2.16}$	g/10min	ASTM D1238	0.30 / 8.5	0.10 / 2.5			
Density	g/cm ³	ASTM D1505	0.950	0.953	0.958	0.958	0.952
Thermal properties							
Melting point	°C	FPC Method	131	134	134	134	132
Brittleness point	°C	ASTM D746	<-70	<-70	<-70	<-70	<-70
Softening point	°C	ASTM D1525	126	127	127	127	124
Mechanical properties							
Tensile strength at yield	Kg/cm ²	ASTM D638	250	270	310	310	285
Tensile strength at break	Kg/cm ²	ASTM D638	380	380	380	380	350
Elongation at break	%	ASTM D638	800	800	1000	1000	1000
Tensile Impact Strength	kg. cm/cm ²	ASTM D1822	800	1000	350	350	400
Izod Impact Strength	Kg-cm/cm notch	ASTM D256	>40	NB	25	>40	13
Hardness	Shore D	ASTM D2240	65	67	69	69	66
ESCR	Hours	ASTM D1693	>600	>1000	30	30	200
Die Swell Ratio	%	FPC Method	1.75	1.75	1.55	1.48	1.52
Pinch-off thickness	—	FPC Method	Excellent	Excellent	Good	Good	Good
Electrical properties							
Dielectric Constant 1MHz		ASTM D1531					
Dissipation Factor 1MHz		ASTM D1531					
Volume Resistivity	Ohm-cm	ASTM D257					
Characteristics			Good melt strength Excellent impact Excellent ESCR Chemical resistance	High rigidity stiffness Good melt strength Excellent impact Excellent ESCR Chemical resistance	Good stiffness High rigidity Chemical resistance	Good stiffness High rigidity Good impact strength Chemical resistance	Good ESCR High toughness Chemical resistance
Application			30-150L Drum Chemical tank Industrial containers	200-220L Drum L-ring type Drum Chemical tank Industrial containers	Water tank up to 25L Milk bottle Medicine cans Soy sauce tank Tool box Toys	Small bottle up to 5L Milk bottle Medicine cans Soy sauce tank Tool box Toys	Cosmetic bottle Detergent bottle Engine oil bottle Medicine cans Shoe last Tool box Toys

PS.: 1. Processing Condition : Blow Temperature = 160 - 180°C · 7001 or 7501 for Drum processing = 190 - 230°C

2. Data shown are average values and should not be examined for specifications .