



High Density Polyethylene (HDPE) -- Extrusion Grade Data Sheets

Grade			Flat Yarn & Monofilament		Pipe	Coating	Wire & Cable
			8010	8012	*8001	9002	9007
Properties	Unit	Test Method					
Melt Index MI _{2.16}	g/10min	ASTM D1238	1.0	1.1	0.05	0.15	0.80
Melt Index MI ₅ /MI _{21.6}	g/10min	ASTM D1238			0.24 / 7.0		
Density	g/cm ³	ASTM D1505	0.956	0.957	0.948	0.948	0.951
Thermal properties							
Melting point	°C	FPC Method	134	134	129	129	130
Brittleness point	°C	ASTM D746	<-70	<-70	<-70	<-70	<-70
Softening point	°C	ASTM D1525	127	127	122	123	120
Mechanical properties							
Tensile strength at yield	Kg/cm ²	ASTM D638	295	300	240	250	230
Tensile strength at break	Kg/cm ²	ASTM D638	390	380	360	330	250
Elongation at break	%	ASTM D638	>1000	>1000	850	800	600
Tensile Impact Strength	kg. cm/cm ²	ASTM D1822	350	350	750	550	260
Izod Impact Strength	Kg-cm/cm notch	ASTM D256	> 50	> 50	>30	18	6
Hardness	Shore D	ASTM D2240	69	69	64	65	65
ESCR	Hours	ASTM D1693			>1000	>1000	>48
Die Swell Ratio	%	FPC Method					
Pinch-off thickness	—	FPC Method					
Electrical properties							
Dielectric Constant 1MHz		ASTM D1531					2.3
Dissipation Factor 1MHz		ASTM D1531					0.00006
Volume Resistivity	Ohm-cm	ASTM D257					1×10 ¹⁷
Characteristics			Good stretchability High tenacity Good processability High impact strength	Good stretchability High tenacity Good processability High impact strength Good glossy	Good ESCR High creep High intensity Good mechanical	Good impact Excellent ESCR Good Strength and toughness Good chemical-resistance	High Toughness Excellent ESCR High-speed-moldability Excellent coating-appearance
Application			Ropes and nets Tarpaulin Woven bags Extruder sheet Foam sheet	Ropes and nets Tarpaulin Woven bags Extruder sheet Foam sheet	Gas pipe Potable water pipe Sewer & drain pipe Chemical pipe Cable conduct	Steel Pipe Coating Steel wire rope-coating	Telephone wire insulation(C C P) Outer skin in "foam-skin" (F.S)

PS.: 1. Processing Condition : Processing Temperature Yarn = 190 - 210°C 、 Monofilament = 260-280°C 、 Pipe = 180-220°C
Steel pipe coating = 180 - 210°C 、 Wire insulation coating = 220 - 250°C

*2. 8001 is a PE100 class material according to ISO 9080 : 2003(E)

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