

High Strength and Flexible Packaging Films

High and Medium Density Polyethylene
Film Grades

HFI 5110
MFI 3713
MFI 3820
MFI 3313

REACH Certified
Food Contact Compliance Certified

More than half of PE grades are used in the packaging industry. PE films have a very important role in the production of different packages and are used in various industries such as food packaging, chemicals, construction materials, etc. PE films help us to have healthier food and more convenient transportation. Paying attention to the recycling of these films and proper management of their waste, is one of our main challenges.

ASPC offers a wide range of different grades of MD/HDPE with different MFI and density. These grades are used in various film formulations and create a unique balance of mechanical strength along with high tear/puncture resistance. The unique gas phase technology, along with the use of chromium catalysts and 1-Hexene co-monomer, has created a special melt strength and process-ability in these grades.

ASPC film grades portfolio: HFI 5110, MFI 3713, MFI 3820 and MFI 3313

Our recommended application:

- ▶ High strength grocery sacks
- ▶ High strength carrier bags
- ▶ Food and retail packaging
- ▶ Shopping bags
- ▶ High quality thin films
- ▶ Uni/multi layer packaging

HFI 5110, MFI 3713, MFI 3820 and MFI 3313 main characteristic:

- ▶ High bubble-stability at high throughput
- ▶ Excellent process-ability
- ▶ Low extrusion pressure
- ▶ Excellent thickness control
- ▶ Low energy consumption
- ▶ High melt stability
- ▶ High tear resistance
- ▶ High strength
- ▶ Good seal-ability
- ▶ Flexibility of sealing line
- ▶ Packaging integrity
- ▶ High quality graphic printing



PE Film Grades Main Properties

PROPERTIES	PHYSICAL			MECHANICAL			
	Density 23°C	Melt Flow Rate		Elmendorf Tear Strength (MD)	Elmendorf Tear Strength (TD)	Dart Drop Impact	Failure Energy
		190°C, 2.16 kg	190°C, 21.6 kg				
Test Method	ISO 1183	ISO 1133-1		ISO 6383-2		ASTM D1709	DIN 53373
Unit	g/cm ³	g/10 min		mN		g	J/mm
HFI 5110	0.951	0.075	10	250	800	-	-
MFI 3713	0.937	0.10	13	210	1100	120	7
MFI 3820	0.938	0.25	20	-	-	120	7
MFI 3313	0.933	0.10	13	330	2000	160	8.5

ASPC Grade Naming

HFI: High Density PE for Film Blowing Process **MFI:** Medium Density PE for Film Blowing Process

First and Second Digit	Grade Typical Density (kg/m ³)	Third and Fourth Digit	HLMI (g/10min, 21.6 kg at 190°C)
51	951	10	10
38	938	10	20
37	937	13	13
33	933		