

## HF5110 HDPE

HF5110 is a high molecular weight, high density polyethylene, which has a broad molecular weight distribution and high melt strength. This product specially designed for producing thin films with excellent strength and rigidity.

HF5110 is recommended for blown film extrusion. This product is suitable for manufacture of high strength grocery sacks, shopping bags and high quality thin films for uni/multi-wall packaging. Films produced with this product can be readily treated and printed to give high quality graphics.

### Application:

- Film
- Light-Duty Films
- Bags and density modifies



### Features:

- Good Melt Strength
- Food Contact
- Medium Molecular Weight
- Broad Molecular Weight Distribution

#	PHYSICAL	VALUE	Unit	Method
1	High Load Melt Flow Index (190oC/ 21.6 kg)	10	g/10 min	ISO 1133
2	Density 2	0.951	g/cm3	ISO 1183
3	<b>MECHANICAL</b>			
4	Tensile Modulus of Elasticity	1050	MPa	ISO 527-1, -2
5	Tensile Strength (MD)	55	MPa	ISO 527-1, -3
6	Tensile Strain at Break (TD)	620	%	ISO 527-1, -3
7	Tensile Strength (TD)	55	MPa	ISO 527-1, -3
8	Tensile Strain at Break (MD)	580	%	ISO 527-1, -3
9	Tensile Stress at Yield	26	Mpa	ISO 527-1, -3
10	Tensile Strain at Yield	10	%	ISO 527-1, -3
11	Elmendorf Tear Strength (MD)	250	MN	ISO 6383-2
12	Elmendorf Tear Strength (TD)	800	MN	ISO 6383-2
13	<b>Thermal</b>			
15	Melting Temperature	132	°C	ISO 3146
16	Vicat Softening Temperature (Method A/10N)	127	°C	ISO 306
17	<b>Recommended Process Conditions 4</b>			
18	Extruder temperature profile	200-235	°C	Blow up ratio: 3-5
19	Film thickness	15-50	µ m	

Additive:Antioxidant/Zinc Stearate

### Product properties:

Extruder temperature profile: 200-235°C Frost line height: 6-8 times die diameter. Blow Up Ratio: 3-5 Recommended film thickness: 15 to 50 µm Please note that, these processing conditions are recommended by producer only for 100% HFI5110 resin (not in the case of blending with any other compatible material), but because of the many particular factors which are outside our knowledge and control, and may affect the use of product, no warranty is given.

### Food packaging:

HF 5110 meets the relevant requirements of plastics directive 2002/72/EC (06-08-2002) and its amendments till directive 2008/39EC relating to plastic materials and articles intended to come into contact with foodstuffs.

### **Pharmaceutical Application:**

HF 5110 meets the requirements of the European pharmacopeia version 6 section 3.1.5 for pharmaceutical application.

### **Conveying:**

Conveying equipment should be designed to prevent accumulation of fines and dust particles can, under certain conditions, pose an explosion hazard. We recommend that the conveying system used: 1. be equipped with adequate filters 2. is operated and maintained in such a manner to ensure no leaks develop 3. that adequate grounding exists at all times We further recommended that good housekeeping will practiced throughout the facility.

### **Storage:**

As ultraviolet light may cause a change in the material, all resins should be protected from direct sunlight and/or heat during storage. The storage location should also be dry, dust free and the ambient temperature should not exceed 50. It is also advisable to process polyethylene resins (in pelletized or powder form) within 6 months after delivery, this because also excessive aging of polyethylene can lead to a deterioration in quality.

For technical assistance or further information on this product contact us.