

## HD – EX5

### License Grade Code HM 9450 F

#### 1) Product Description:

“EX5 (HM 9450 F)” is a high Density polyethylene with Butene-1 as comonomer. It is a high molar mass for blown film with in comparison to EX4 lower stiffness and increased tenacity. The product has good toughness, low gel level and good tear strength. Stabilization: Ca-Stearate, Zn-Stearate, Irgafos168

#### 2) Applications:

- Blown films with paper like quality.
- Suitable for counter bags.
- Carrier bags.
- Wrapping films and sheets.
- Blending partner.

#### 3) Typical Data

Property	Unit	Typical Value	Test Method
<b>Physical</b>			
Melt Flow Rate(MFR) (190 °C/2.16Kg)	g/10min	---	ISO 1133
(190 °C/5Kg)		0.28	
(190 °C/21.6Kg)		8	
Density	g/cm <sup>3</sup>	0.949	ISO 1183
<b>Film Properties</b>			
Impact Strength	gr	220	ASTM D 1709
Tear Strength TD	mN	450	ISO 6383-2
Tear Strength MD	mN	200	ISO 6383-2
Yield Stress TD	Mpa	20	ISO 527
Yield Stress MD	Mpa	18	ISO 527
Tensile Strength TD	MPa	40	ISO 527
Tensile Strength MD	MPa	45	ISO 527
Elongation at break TD	%	450	ISO 527
Elongation at break MD	%	400	ISO 527
Modulus of elasticity TD	Mpa	500	ISO 527
Modulus of elasticity MD	Mpa	400	ISO 527
Secant Modulus	Mpa		ISO 527
Hardness Shore D	---	60	ISO 868
Gel size	µm	≤120	Internal Method
Gel Number	-	≤3	Internal Method
<b>Thermal Properties</b>			
Vicat Softening Temperature	°C	75	ISO 306
Melting Point	°C	136	ISO 3146

#### 4) Processing Condition:

Recommended melt temperature: 200-230 °C

Film Blowing Machine: Dr.Collin 30M (Extruder) + 180/400(Unit) Barrel Temperature (°C): 170,240,240

Flange Temperature (°C): 240

Blown Film Line Temperature (°C): 240,240

Screw Speed is set to 60 rpm

Blow up Ratio of 4:1

Recommended Film thickness: 20-200 µm

Die Diameter: 50mm

Die Gap: 0.5mm

