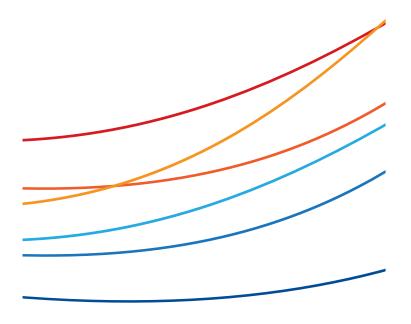


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HDPE Products



Product Capacity of HDPE plant

	GRADES		PROPERTY	MFR (190°C/2.16 kg)	Density	
			UNIT	(g/10 min).	g/l	
			ASTM METHOD	D 1238	ISO 1183	
			INTERNAL METHOD	17066		
	1. INJECTION MOLDING	G				
	HC 7260 for transport and creates		nd stacking bottle crates,particularty bottle	23±3	0.957±0.002	
	HC 7260 *		nd stacking bottle crates,particularty bottle	23±3	0.960±0.002	
	HD 7255	for thick walled h bins and fish crat	nighly stressed transport container,e.g. refuse	11±2	0.954±0.002	
	HD 7255*	for thick walled highly stressed transport container,e.g. refuse bins and fish crates		11±2	0.954±0.002	
	2. SMALL BLOW MOLD	DING		•		
Available >	HF 4750		bottles up to 2 liters, tubes for cosmetics,	1.1±0.3	0.044+0.002	
	HF 4760 (BL3) HH 4765	containers up to for container wi 10liters , alsofor for hollow article	10 liters and petrol cans up to 5 liters ith capacites ranging from a few ml up to production of sheets for thermoforming es where high stress cracking resistance is not as bottles and caisters up to 10 liters, e.g. for	1.2±0.3 1.5±0.3	0.944±0.002 0.954±0.002 0.959±0.002+	
	3. LARGE BLOW MOLD	ING	NG			
Available >	HM 8355 general-purpose grade for large containers		rade for large containers	0.25±0.06	0.951±0.002	
	4. STRETCHED TAPE (RAFFIA)					
	HF 7740 F	stretched films knitted and wove	and tapes for production of high-strength	1.8±0.3	0.944±0.002	
	HF 7740 F2	tapes to be used cover	for agricultural packagings and as protective	1.8±0.3	0.944±0.002	
	5. MONOFILAMENT					
	HF 7750 M HF 7750 M2	production of mo monofilaments fo geo textiles and o		2.5±0.3 3.3±0.3	0.956±0.002 0.956±0.002	



Product Capacity of HDPE plant

			PROPERTY	MFR (190°C/2.16 kg)	Density
	GRAD	ES	UNIT	(g/10 min).	g/l
			ASTM METHOD	D 1238	ISO 1183
			INTERNAL METHOD	17066	
	6. CABLE				
	HF 4750 K	cable insulation		3.5±0.5	0.946±0.002
	7. PIPE(NATURAL/C	COLOR)			
Available >	HM 5010 T2 N	pressure pipes, e.g	g. drinking-water and gas pipes,waste pipes	0.45±0.06	0.945±0.002
			heir fittings and also sheets(UV stabilization		
	HM 5010 T3 N	and pigments during high-quality PE	ng processing) 80 pressure pipes for gas and water	0.43±0.03	0.944±0.002
			stabilization and pigments during processing)		
	HM 5010 T3 Black		80 pressure pipes for gas and water stabilization and pigments during processing)	0.43±0.03	0.954±0.002
		top quality PE	100 pressure pipes for gas and water		
Available >	HM CRP 100 N		igher pressures or with thinner walls as PE 80 nd/or pigments during precessing)	0.22±0.03	0.948±0.002
			100 pressure pipes for gas and water		
Available >	HM CRP 100 Black		igher pressures or with thinner walls as PE 80 nd/or pigments during precessing)	0.22±0.02	0.957±0.002
	HM CRP 100 Blue	transportation at h (UV stabilization ar	100 pressure pipes for gas and water igher pressures or with thinner walls as PE 80 nd/or pigments during precessing)	0.22±0.02	0.948±0.002
			100 pressure pipes for gas and water igher pressures or with thinner walls as PE 80		
	HM CRP 100 O/Y		nd/or pigments during precessing)	0.22±0.02	0.949±0.002
	8. FILM				
	HM 9455 F		with paperlike quality, suitable for counter and wrapping films, excellent processing	0.28±0.05	0.956±0.002
Available >	HM 9450 F		with paperlike quality, suitable for counter	0.28±0.05	0.949±0.002
	HM 9450 F1	for blown films	and wrapping films,excellent processing with paperlike quality,suitable for counter and wrapping films,excellent processing and	0.22±0.05	0.950±0.002
	HM 9455 F1	for blown films	with paperlike quality, suitable for counter	0.22±0.05	0.957±0.002
	HM 9445 HT	for blown films	and wrapping films, excellent processing with paperlike quality, suitable for counter and wrapping films, excellent processing	0.18±0.03	0.944±0.002





HDPE made via Hostalen Process



HF-4760 (BL3) HF-4760 (BL3) is a blow molding grade resin which is manufactured by suspension polymerization of ethylene monomer. HF-4760 (BL3) is a bi-model high density polyethylene with 1-Butene as co monomer.

HDPE: HF-4760(BL₃)

Characteristic Properties



 High density and Stiffness, good flowabilitty and impact Strenght and good Stress Cracking resistance.

Density: 0.942-0.956 g/cm3

Main Applications



 For container with capacities ranging from a few ml up to 10 liters, also for production of sheets for thermoforming.

MFR 190/5: 0.9-1.5

Additives



- Antioxidant/Process stabilizer
- Lubricant/ acid scavenger

Resin Properties	Unit	Typical Value	Test Method
Melt Index(21.6)	(g/10 min)	23	ISO 1133
Melt Index(5)	(g/10 min)	1.2	ISO 1133
FRR (21.6/5)		19	
Density	g/cm³	0.954	ISO 1183
Moulded Properties	Unit	Typical Value	Test Method
Notched Impact @ 23 °C	mJ/mm²	9	ISO 179/ 1 eA

Handling and Health Safety

Molten polymers could be injured skin or eye so safety glasses and appropriate gloves are suggested to prevent possible thermal injuries. Also appropriate ventilation is suggested in working by melt polymer.

Accumulation of fines or dust particles that are in this grade is not suitable because of explosion hazard probability. So adequated filters and grounding exists at all time are recommended.

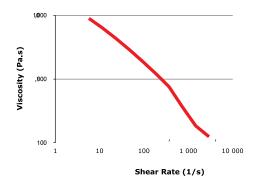
Storage

Polyethylene products (in pelletised or powder form) should not be stored in direct sunshine and/or heat radiation. Ultraviolet cause a change in the material properties. The Storage area should be dry and preferably don't exceed 50 °C. Under cool, dry, dark conditions Jam Polymers polyolefin resins are expected to maintain the original material and processing properties for at least 18 month. JPC would not ressponsible about quality diminishing such as color change, bad smell or ets which caused by bad storage conditions. It is better to process PE resin within 6 months after delivery.

packaging

Jam Polymers Polyolefin resins are supplied in Pellet form packed in 25kg bags. Alternative packaging modes are avalable for selected grades. - On compression moulded according to ASTM D1928C Processing Conditions Recommended barrel tempratures range between 190 $^{\circ}\text{C}$ and 280 $^{\circ}\text{C}$.

Shear-Viscosity @ 190 °C





The above values were Calculated from data for 100 µm produced on a 75mm Barrnage extruder with 190°C melt temperature using a 2:1 blow ratio and a gap die of 3.0 mm.





HDPE made via Hostalen Process



HM-8355 (BL4) HM-8355(BL4) is a Blow molding grade resin which is manufactured by suspension polymerization of ethylene monomer. HM-8355 (BL4) is a bu-modal high density polyethylene with Butene-1 as co monomer with general purpose of large container.

HDPE: HM-8355(BL4)

Characteristic Properties



 High molar mass, easily processable high stiffness strenght, good stress Cracking resistance and very good molding surface finish.

Density: 0.949-0.953 g/cm3

Main Applications



 General purpose grade for large container.

MFR 190/5: 0.29-0.41





- Antioxidant/Process stabilizer
- Lubricant/ acid scavenger

Resin Properties	Unit	Typical Value	Test Method
Melt Index(21.6)	(g/10 min)	9.5	ISO 1133
Melt Index(5)	(g/10 min)	0.35	ISO 1133
FRR (21.6/5)		27	
Density	g/cm³	0.951	ISO 1183
Swell Ratio	%	110	
Moulded Properties	Unit	Typical Value	Test Method
Notched Impact @ 23 °C	mJ/mm²	10	ISO 179/ 1 eA

Handling and Health Safety

Molten polymers could be injured skin or eye so safety glasses and appropriate gloves are suggested to prevent possible thermal injuries. Also appropriate ventilation is suggested in working by melt polymer.

Accumulation of fines or dust particles that are in this grade is not suitable because of explosion hazard probability. So adequated filters and grounding exists at all time are recommended.

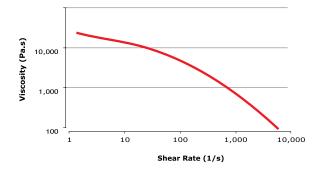
Storage

Polyethylene products (in pelletised or powder form) should not be stored in direct sunshine and/or heat radiation. Ultraviolet cause a change in the material properties. The Storage area should be dry and preferably don't exceed 50 °C. Under cool, dry, dark conditions Jam Polymers polyolefin resins are expected to maintain the original material and processing properties for at least 18 month. JPC would not ressponsible about quality diminishing such as color change, bad smell or ets which caused by bad storage conditions. It is better to process PE resin within 6 months after delivery.

packaging

Jam Polymers Polyolefin resins are supplied in Pellet form packed in 25kg bags. Alternative packaging modes are avalable for selected grades. - On compression moulded according to ASTM D1928C Processing Conditions Recommended barrel tempratures range between 190 $^{\circ}\text{C}$ and 280 $^{\circ}\text{C}$.

Shear-Viscosity @ 190 °C





The above values were Calculated from data for 100 µm produced on a 75mm Barrnage extruder with 190°C melt temperature using a 2:1 blow ratio and a gap die of 3.0 mm.





HDPE made via Hostalen Process



HM-5010T2N (EX3)

HM-5010T2N (EX3) is a pipe grade resin which is manufactured by the suspension polymerization of ethylene monomer. HM-5010T2N (EX3) is a bi-model high density polyethylene with 1-Butene as co monomer.

HDPE: HM-5010T2N (EX₃)

Characteristic Properties



• Tough and rigid pipe resin.

Density: 0.943-0.947 g/cm3

Main Applications



• Pressure pipes, e.g. drinking-water and gas pipes, waste pipes and sewer pipes, their fittings and also sheets (UV stabilization and pigments during processing)

MFR 190/5: 0.39-0.51

Additives



- Antioxidant/Process stabilizer
- Lubricant (processing aid)/ acid scavenger

Resin Properties	Unit	Typical Value	Test Method
Melt Index (21.6)	(g/10 min)	12	ISO 1133
Melt Index (5)	(g/10 min)	0.45	ISO 1133
FRR (21.6/5)		27	
Density	g/cm³	0.945	ISO 1183
Moulded Properties	Unit	Typical Value	Test Method
Notched Impact @ 23 °C	mJ/mm²	12	ISO 179/ 1 eA
Mechanical Properties	Unit	Typical Value	Test Method
Hydrostatic Strenght (80 °C)	h	(4.0 N/mm²) 1000	ISO 1167

Handling and Health Safety

Molten polymers could be injured skin or eye so safety glasses and appropriate gloves are suggested to prevent possible thermal injuries. Also appropriate ventilation is suggested in working by melt polymer.

Accumulation of fines or dust particles that are in this grade is not suitable because of explosion hazard probability. So adequated filters and grounding exists at all time are recommended.

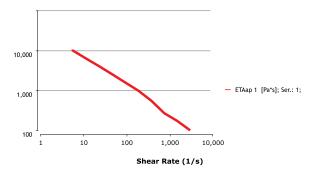
Storage

Polyethylene products (in pelletised or powder form) should not be stored in direct sunshine and/or heat radiation. Ultraviolet cause a change in the material properties. The Storage area should be dry and preferably don't exceed 50 °C. Under cool, dry, dark conditions Jam Polymers polyolefin resins are expected to maintain the original material and processing properties for at least 18 month. JPC would not ressponsible about quality diminishing such as color change, bad smell or ets which caused by bad storage conditions. It is better to process PE resin within 6 months after delivery.

packaging

Jam Polymers Polyolefin resins are supplied in Pellet form packed in 25kg bags. Alternative packaging modes are avalable for selected grades. - On compression moulded according to ASTM D1928C Processing Conditions Recommended barrel tempratures range between 190 $^{\circ}\text{C}$ and 280 $^{\circ}\text{C}$.

Shear-Viscosity @ 190 °C





The above values were Calculated from data for 100 µm produced on a 75mm Barrnage extruder with 190°C melt temperature using a 2:1 blow ratio and a gap die of 3.0 mm.





HDPE made via Hostalen Process



HMCRP 100N (PE100)

-M-CRP100N (PE100) is a natural pipe grade resin shich is manufactured by suspension polymerization of ethylen monomer, HM-CRP100N)PE100) is a bi-model high density polyethylene with 1-Butene as co monomer.

HDPE: HMCRP 100 N (PE100)

Characteristic Properties



• Natural PE100 pipe resin.

Density: 0.946-0.950 g/cm3

Main Applications



- Top quality PE100 pressure
- Pipes for gas and water transportaion at higher pressures or with thinner walls as PE80 (UV stabilization and/ or pigments during precessing)

MFR 190/5: 0.19-0.25

Additives



- Antioxidant/Process stabilizer
- Lubricant (processing aid)/ acid scavenger

Test/Composition	Typical Value	Unit	ASTM Method
Density	0.948	g/ml³	ISO1183
FRR 21.6/5	28		
Hydrostatic Strength (80°c)	5000 (4.5N/mm ²)	h	ISO1167
MFR190°/21.6	6.2	(g/10 min)	ISO1133
MFR190°/5	0.22	(g/10 min)	ISO1133
Notched Impact (23°c)	24	mJ/mm²	ISO179/1eA

- Test specimen from compression moulded sheet at 23 °C.
- FRR values are statistical and calculated by dividing MFR values.
- Notch Impact Test specimen from compressed moulded sheet 23°C and The data quoted are average values .





HDPE made via Hostalen Process



HM CRP 100 Black

HM-CRP100 Black is a black pipe grade resin (PE100) which is manufactured by suspension polymerization of ethylene monomer. HM-CRP100 Blue is a bi-model high densit polyethylene with 1-Butene as co monomer.

HDPE: HM CRP 100 Black (PE100 Black)

Characteristic **Properties**



• Black PE100 resin

Density: 0.955-0.959 g/cm3

Main Applications



• Top quality PE100 pressure pipes for gas and water transportation at higher pressures or with thinner walls as PE80

MFR 190/5: 0.20-0.24

Additives



- Antioxidant/Process stabilizer
- Lubricant (processing aid)/ acid scavenger
- Carton Black

Test/Composition	Typical Value	Unit	ASTM Method
Density	0.947	g/ml³	ISO1183
FRR 21.6/5	28		
Hydrostatic Strength (80°c)	5000 (4.5N/mm ²)	h	ISO1167
MFR190°/21.6	6.2	(g/10 min)	ISO1133
MFR190°/5	0.22	(g/10 min)	ISO1133
Notched Impact (23°c)	24	mJ/mm²	ISO179/1eA

- Test specimen from compression moulded sheet at 23°C.
- FRR values are statistical and calculated by dividing MFR values
 Test specimen from compressed moulded sheet 23 C sheet 23 °C
 The data quoted are average values
- The data quoted are average values





HDPE made via Hostalen Process



HM9450F (EX5)

HM-9450F (EX5) is blown film grade resin which is manufactured by suspension polymerization of ethylen monomer. HM-9450F (EX5) is a bi-model high density polyethylene with 1-Butene as co monomer.

HDPE: HM9450F (EX5)

Characteristic Properties



• High molar mass film grade, good stiffness and tenacity

Density: 0.947-0.951 g/cm3

Main Applications



• For blown films with paperlike quality, sutable for counter bags, carrier bags and wrapping films, excellent processing.

MFR 190/5: 0.23-0.33

Additives



- Antioxidant/Process stabilizer
- Lubricant (processing aid)/ acid scavenge

Test/Composition	Typical Value	Unit	Method
Density	0.949	g/cm³	ISO1183
Fish Eye Note	≤3	note	Internal
FRR 21.6/5	29		
MFR 190°/21.6	8.0	g/10min	ISO1133
MFR190°/5	0.28	g/10min	ISO1133

- Test specimen from compression moulded sheet at 23 °C.
- FRR values are statistical and calculated by dividing MFR values.
- Notch Impact Test specimen from compressed moulded sheet 23 °C and The data quoted are average values