



**iAM**  
Petrochemical  
Company

Global.Distinguished

CATALOGUE 2024-2025  
**TECHNICAL & APPLICATION**

# CATALOGUE 2024-2025

## TECHNICAL & APPLICATION

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# JAM





# About JAM

**JAM Petrochemical Company** (Public Stock) has been registered under the registration number of 32285 in year 2000 alongside with the country's macro programs in petrochemical industry for exploiting from South Pars Gas-Condensate field. This huge industrial complex has been constructed in a land with an area of 77 hectares in South Pars Special Economic Energy Zone, located in Assalouyeh, Bushehr Province.

JAM Petrochemical Company, holding the manufacturing plant of olefin, linear Low and High Density polyethylene, Butadiene and butene-1, after passing about one decade, is still deemed as one of the world's largest olefin manufacturers and one of the Iran's leading manufacturers in polymer products.

JAM, the most significant manufacturing company in South Pars Special Economic Energy Zone, by producing and supplying different grades of petrochemical products in domestic and export markets, and with a glorious movement toward development and advancement, is considered to be one of the most important petrochemical industrial complexes in the field of economics.



# VISION

*Customers' preference, Stakeholders' desirable*

We will make it possible by sustainable and innovative solutions.

# MISSION

JAM Petrochemical Company has been developed in order to produce and make investments in petrochemical industry and to compete in global markets, in which to be able to create values and sustainable development by entrepreneurial approach and customer orientation, through employing commitments, skilled personnel, and optimal allocation of resources by respecting environmental aspects while application of innovative and operational approaches are being the centre of our attention.





## GOALS

1. Sustainable increase in production
2. Completing the products' value chain
3. Globalization of products' quality
4. Increasing attendance in international markets
5. Highlighting the image of JAM Petrochemical Company's brand.

## VALUES

1. Taking care of shareholders' fiduciary
2. Challenger for achieving success
3. Practical belief for conserving the environment
4. Continuous planning for organizational efficiency and excellency
5. Effective communications with customers
6. Developing the culture of learning, innovation and creativity
7. Paying attention to workforces and their families





# HDPE PLANT

Producing Plants and Products



# High-density Polyethylene PLANT

HDPE Plant of JAM Petrochemical Company under LYONDELL BASELL Company's license and basic engineering of KRUPP UHDE, with an annual producing rate of 300,000 tons, is one the largest polymer units in Iran. Beside the feasibility to produce 23 main grades, the unit also bears the possibility to produce black, yellow, blue, orange and normal grades. These specifications exclusively belong to JAM Petrochemical Company within the country and is scarce worldwide. **HDPE Plant of JAM Petrochemical Company is the first producer of black grade (CRP100 pipe) in Iran.**

**Unique specifications of HDPE plant in comparison with other plants:**

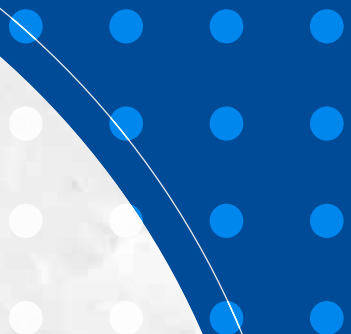
- Variable products regarding the variety of produced grades
- High production capacity
- Feasibility to produce colorful grades and possessing two extruder and packaging lines











# PRODUCT DATA



# HF4760 (BL3)

## PRODUCT DATA SHEET

HF-4760 (BL3) is a blow molding grade high density polyethylene with butene-1 as comonomer which is manufactured by suspension polymerization of ethylene monomer. High rigidity and excellent balance of high stiffness and good ESCR are key features of this product. It can be used in production of small blow molding containers up to 10 L, toys, packaging of consumer goods.

### HDPE: HF-4760(BL3)

#### Characteristic Properties

- High density and stiffness
- Good flowability and impact strength
- Good stress cracking resistance.

### Density: 0.952-0.956 g/cm<sup>3</sup>

#### Main Applications

- For containers 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

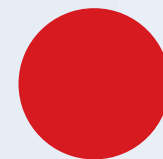
#### Additives

- Antioxidant/Process stabilizer
- Lubricant/ acid scavenger

Material properties (This data are typical values and are not to be construed as product specifications.)

Resin Properties	Unit	Typical Value	Test Method
<b>Melt Index(21.6)</b>	g/10 min	23	ISO 1133
<b>Melt Index(5)</b>	g/10 min	1.2	ISO 1133
<b>FRR (21.6/5)</b>	-	19	-
<b>Density</b>	g/cm <sup>3</sup>	0.954	ISO 1183
Molded Properties	Unit	Typical Value	Test Method
<b>Notched Impact @ 23 °C</b>	mJ/mm <sup>2</sup>	9	ISO 179/ 1 eA





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# HMCRP100N (PE100)

## PRODUCT DATA SHEET

HM-CRP100N (PE100) is a natural pipe grade resin which is manufactured by suspension polymerization of ethylene monomer. HM-CRP100N(PE100) is a bimodal high density polyethylene with 1-Butene as comonomer.

### HDPE: HMCRP100N (PE100) Characteristic Properties

- Natural PE100 pipe resin.

### Density: 0.946-0.950 g/cm<sup>3</sup>

#### Main Applications

- Top quality PE100 pressure
- Pipes for gas and water transportation at higher pressures or with thinner walls compared to PE80 (UV stabilization and/ or pigments during processing)

### MFR: 190/5: 0.19-0.25

#### Additives

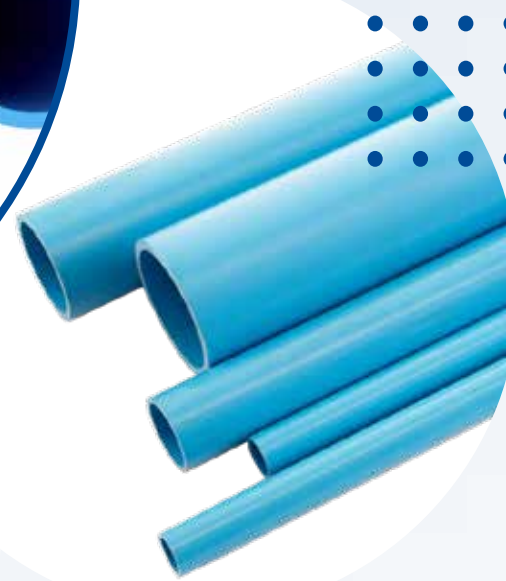
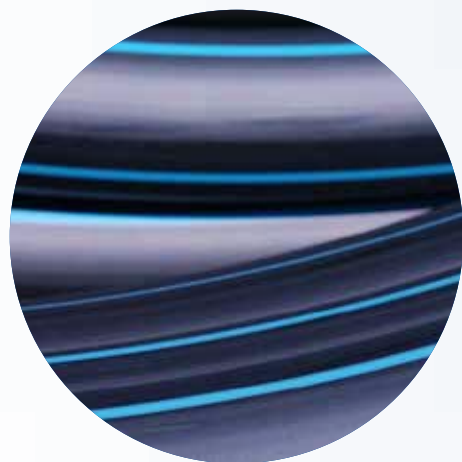
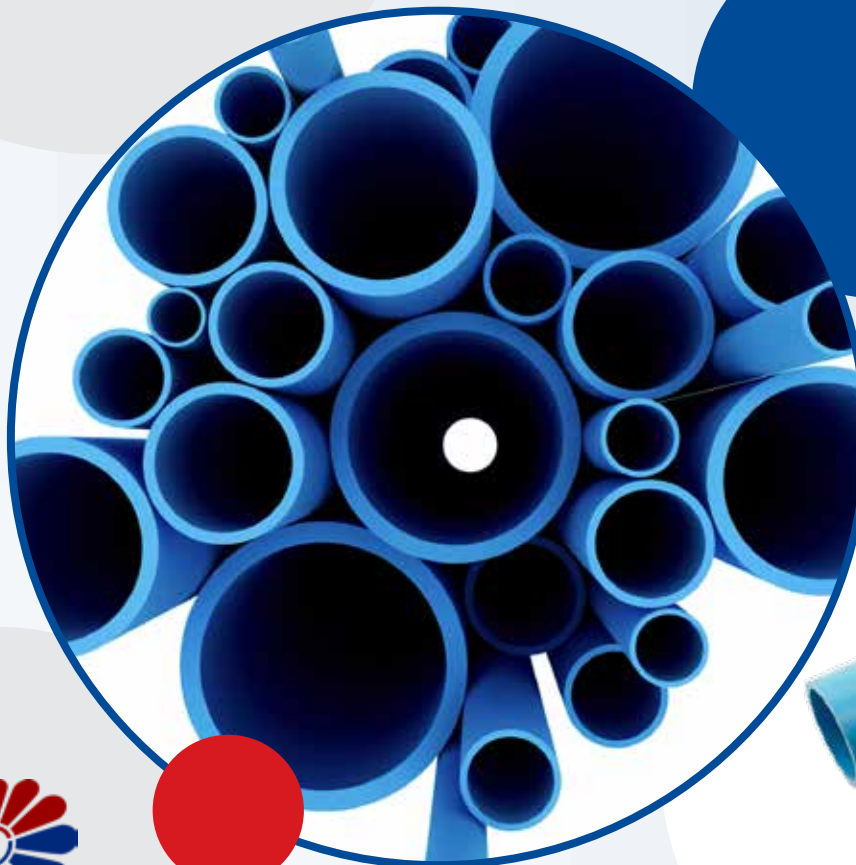
- Antioxidant/Process stabilizer
- Lubricant (processing aid)/ acid scavenger

Material properties (This data are typical values and are not to be construed as product specifications.)

Test/Composition	Typical Value	Unit	ASTM Method
<b>Density</b>	0.948	g/cm <sup>3</sup>	ISO1183
<b>FRR 21.6/5</b>	28		
<b>Hydrostatic Strength (80°C)</b>	5000 (4.5N/mm <sup>2</sup> )	h	ISO1167
<b>MFR190°/21.6</b>	6.2	g/10 min	ISO1133
<b>MFR190°/5</b>	0.22	g/10 min	ISO1133
<b>Notched Impact (23°C)</b>	24	mJ/mm <sup>2</sup>	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





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# HMCRP100B (Black)

## PRODUCT DATA SHEET

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

### HDPE: HMCRP100 Black (PE100 Black)

#### Characteristic Properties

- Black PE100 resin

**Density: 0.955-0.959 g/cm<sup>3</sup>**

#### Main Applications

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

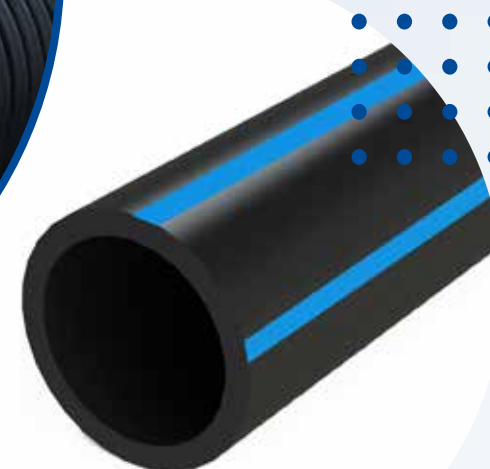
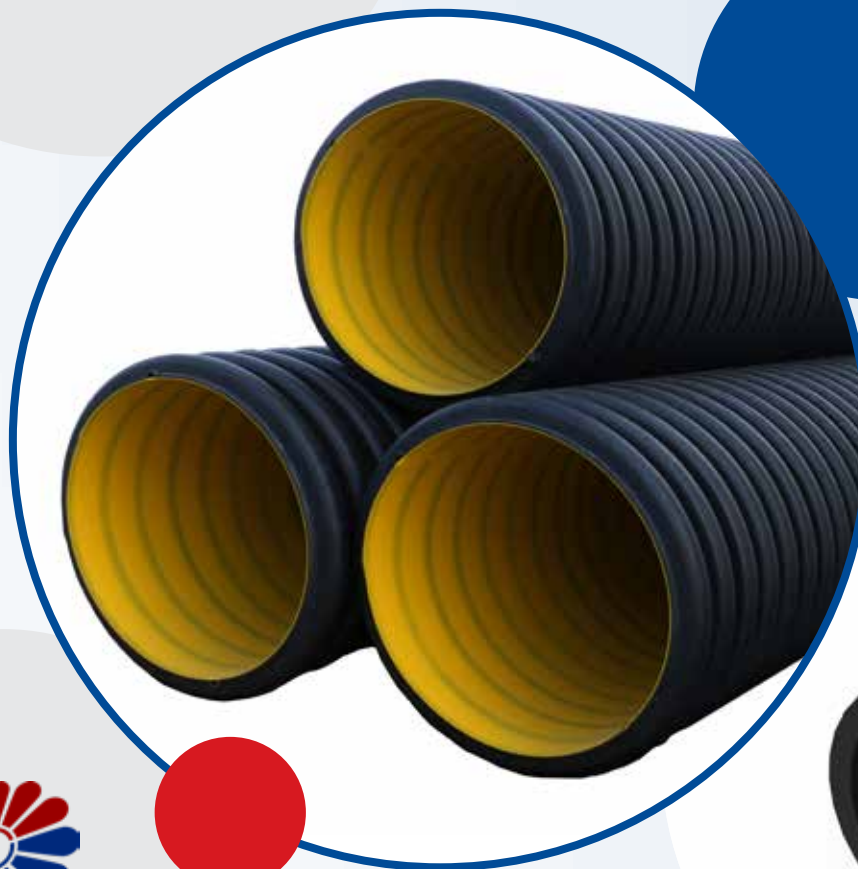
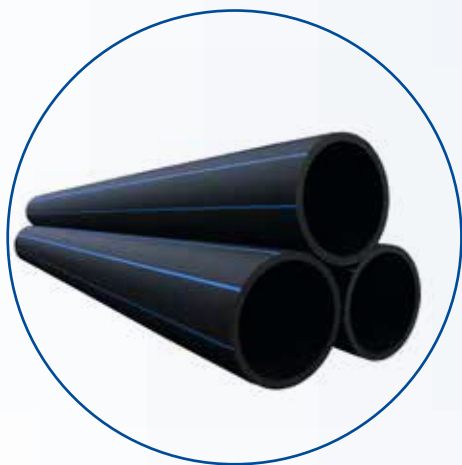
**MFR: 190/5: 0.20-0.24**

#### Additives

- Antioxidant/Process stabilizer
- Lubricant (processing aid)/acid scaenger
- Carbon Black

Resin Properties	Unit	Value	Test Mode
Melt Index (5)	g/10 min	0.22	ISO1133
Melt Index (21.6)	g/10 min	6.2	
FRR (21.6/5)	g/10 min	28	
Density	g/cm <sup>3</sup>	0.957	ISO1183
<b>Mechanical Properties</b>			
Stress at Yield	MPa	>23	ISO527
Strain at Break	%	>500	
Tensile Modulus, secant, 1mm/min	MPa	>700	
Charpy Notched Impact at 23°C	kJ/m <sup>2</sup>	>23	ISO179
Strain Hardening modulus at 80 °C	MPa	>35	ISO18488
FNCT (4 MPa, 2% Arkopal N100, 80 °C)	hr	>1000	ISO18553
ESCR (F50, 10% Igepal)	hr	>5000	ASTM D1693
<b>Pipe Properties</b>			
MRS Classification	Mpa	10	ISO9080
Notched Pipe Test, SCG at 4.6MPa, 80 °C	hr	>500	ISO13479
Creep Rapture Strength Internal Pressure test at 20 C and 12.4 MPa	hr	>200	ISO1167
Burst test	Ductile Failure		ASTM D1599
<b>Thermal Properties</b>			
OIT at 210 °C	min	>30	ISO11357
Melting Point	°C	131±2	ASTM D3418
<b>Pigmentation</b>			
Carbon Black dispersion	Grade	<3	ISO18553
Carbon Black content	2.0-2.5	%	ISO6964





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# HM9450F (EX5)

## PRODUCT DATA SHEET

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

### HDPE: HM9450F (EX5)

#### Characteristic Properties

- High molar mass film grade
- Good stiffness and tenacity

### Density: 0.947-0.951 g/cm<sup>3</sup>

#### Main Applications

- For blown films with paperlike quality, suitable for counter bags, carrier bags and wrapping films
- Excellent processing.

### MFR: 190/5: 0.23-0.33

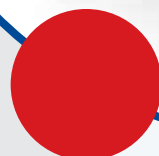
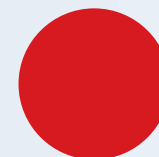
#### Additives

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

Material properties (This data are typical values and are not to be construed as product specifications.)

Test/Composition	Typical Value	Unit	ASTM Method
<b>Density</b>	0.949	g/cm <sup>3</sup>	ISO1183
<b>Fish Eye Note</b>	<3	note	Internal
<b>FRR 21.6/5</b>	29	h	
<b>MFR 190°/21.6</b>	8.0	g/10 min	ISO1133
<b>MFR190°/5</b>	0.28	g/10 min	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



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# LLDPE PLANT

Producing Plants and Products



# Linear Low Density Polyethylene Plant

Linear Low Density Polyethylene plant is under the license of BASEL. JAM Petrochemical Company's LLDPE Plant has been designed and established with TECNIMONT's basic engineering and SPHERILENE technology. Able to produce 300,000 tons of products per year, JPC (LLDPE) Plant is one of the greatest polymer production plants in Iran which benefits possibility of producing both high density and linear low density polyethylene and the plant can produce more than 60 different grades for such varying applications as the follows: **FILM, INJECTION MOLDING, STRETCHED TAPE, MONOFILAMENT, ROTOMOLDING, YARN, CAPS & CLOSURES**

The products made by this plant can be utilized in various industries such as packaging industries, home appliances manufacture industries, textile industry, agricultural industry, and automobile manufacture industries.





# LL235F6

## PRODUCT DATA SHEET

LL-235F6 is a linear-low density polyethylene resin (LLDPE), obtained by gas phase technology process. This grade designed for the production of different types of films and agricultural tapes. In this grade excellent processability, mechanical properties, melt strength and drawability achieved based on the balanced molecular weight and molecular weight distribution. LL-235F6 has good sealability and approved for food contact applications.

### LLDPE: LL-235F6

#### Characteristic Properties

- Good Processability
- Excellent melt strength

### Density: 0.919 - 0.923

#### Main Applications

- Agricultural Films and Tapes
- Lamination
- Shrink Film
- Industrial Films, Frozen Food Packaging

### MFI: 0.5 - 0.7

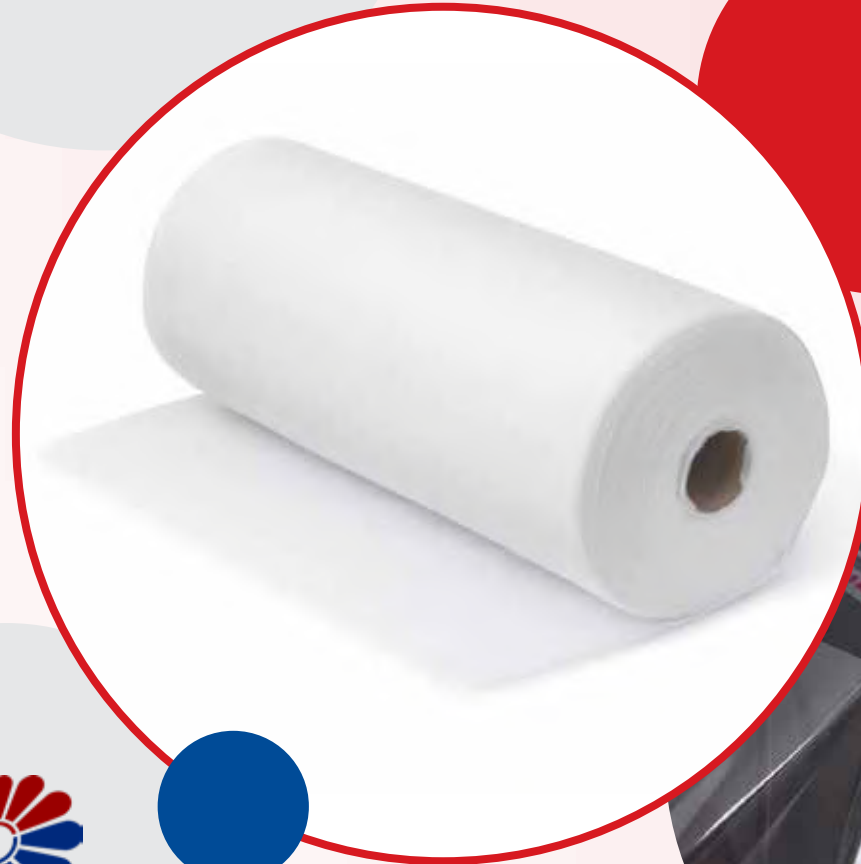
#### Additives

- Thermal Antioxidant (Process Stabilizer)
- Catalyst neutralizer (acid scavenger, lubricant)

Material properties (This data are typical values and are not to be construed as product specifications.)

Resin Properties	Unit	Typical Value	Test Method
Melt Index (°190C/ 2.16Kg)	g/10 min	0.6	D1238
Density	g/cm <sup>3</sup>	0.923	D1505
<b>Mechanical Properties</b>			
Tensile Strength at Yield	MPa	11/11 (MD/TD)	D882
Tensile Strength at Break	MPa	54/44 (MD/TD)	D882
Tensile Elongation at Break	%	650/840(MD/TD)	D882
Elmendorf Tear	gr	124/517 (MD/TD)	D1922
Dart Impact	g	88	D1709
<b>25 micron film obtained on Collin 25. B.u.R. 2.5:1. Temp. profile °190-155C.</b>			
<b>Recommended processing conditions</b>			
Melt Temperature	°C	190-230	
Blow up ratio		1.8-3.0	
Die Gap	mm	2-2.5	
Thickness	micron	18-180	





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# HD5000S

## PRODUCT DATA SHEET

HD5000S is a HDPE grade specially designed for monofilament applications, which combines good processability with high tenacity. This grade has good balance of mechanical strength and high production rates. HD5000S is also well suited for multiply applications, like ropes and stretched filaments.

### HD5000S

#### Characteristic Properties

- Good processability with high tenacity
- Good balance of mechanical strength and high production rates

### Density: 0.950 - 0.956

#### Main Applications

- Fishing net, Rope
- Agricultural net, Tarpaulin
- Woven sacks

### MFI: 0.7 - 0.9

#### Additives

- Antioxidants/Acid scavenger
- Processing aid

Material properties (This data are typical values and are not to be construed as product specifications.)

Resin Properties	Unit	Typical Value	Test Method
Melt Index (°190C/ 2.16Kg)	g/10 min	0.8	D1238
Density	g/cm <sup>3</sup>	0.923	D1505
Thermal Properties			
Vicat Softening Point	°C	130	D1525
Molded Properties			
Flectural Modulus	MPa	1100	D790
Tensile Strength at Yield	MPa	28	D790
Tensile Strength at Break	MPa	14	D638
H.D.T	°C	77	D648
Notched Izod Impact @ 23 °C	J/m	230	D256/A

Processing Conditions, Recommended barrel tempratures range is between 200 °C and °260C

Properties on compression molded specimen obtained according to ASTM D 1928 C





# HD60507 HD60507UV

## PRODUCT DATA SHEET

60507 is a HDPE homopolymer which is manufactured by gas phase process as injection molding grade which combines good flowability with balanced physical properties. This resin is well suited for general purpose application requiring high stiffness.

### HDPE: HD60507 | HD60507UV

#### Characteristic Properties

- Good flowability with balanced physical properties.

### Density: 0.958 - 0.962

#### Main Applications

- Crates, pails, baskets
- Injection molding grade

### MFI: 6.5 - 8.5

#### Additives

#### HD-60507

- Thermal Antioxidant (Process Stabilizer)
- Catalyst neutralizer (acid scavenger, lubricant)

#### HD-60507UV

- Thermal Antioxidant (Process Stabilizer)
- Catalyst neutralizer (acid scavenger, lubricant)
- UV Stabilizer

Material properties (This data are typical values and are not to be construed as product specifications.)

Resin Properties	Unit	Typical Value	Test Method
Melt Index (190°C/ 2.16Kg)	g/10 min	7.5	D1238
Density	g/cm <sup>3</sup>	0.958	D1505
Resin Properties			
Vicat Softening Point	°C	128	D1525
Molded Properties			
Flectural Modulus	MPa	1450	D790
Notched Izod Impact @ 23 °C	J/m	30	D256/A

Properties on compression molded specimen obtained according to ASTM D 1928 C



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# HD52505

## HD52505UV

### PRODUCT DATA SHEET

52505 is a HDPE copolymer which is manufactured by gas phase process. This grade is an injection molding grade for applications requiring a good physical property even at low temperatures, like pails, containers and technical moldings.

#### HDPE: HD52505 | HD52505UV Characteristic Properties

- Good physical property even at low temperatures.

#### Density: 0.950 - 0.954 Main Applications

- Caps and closures for mineral water bottles
- Caps for sparkling water and carbonated soft drinks, beverage caps.
- Pallets , pails

#### MFI: 4 - 6 Additives

##### HD-52505:

- Thermal Antioxidant (Process Stabilizer)
- Catalyst neutralizer (acid scavenger, lubricant)

##### HD-52505 UV:

- Thermal Antioxidant(Process Stabilizer)
- Antiblocking Agent
- Catalyst neutralizer (acid scavenger, lubricant)
- UV Stabilizer

Material properties (This data are typical values and are not to be construed as product specifications.)

Resin Properties	Unit	Typical Value	Test Method
Melt Index (190°C/ 2.16Kg)	g/10 min	5	D1238
Density	g/cm <sup>3</sup>	0.952	D1505
Thermal Properties			
Vicat Softening Point	°C	124	D1525
Molded Properties			
Flectural Modulus	MPa	1200	D790
Tensile Strength at Yield	MPa	27	D638
Tensile Strength at Break	MPa	13	D638
H.D.T	°C	76	D648
Notched Izod Impact @ 23 °C	J/m	29	D256/A

Properties on compression molded specimen obtained according to ASTM D 1928 C





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# HD52518

## PRODUCT DATA SHEET

52518 is a HDPE copolymer for Injection Moulding for applications requiring a good balance between good processability and flowability and mechanical properties.

### HDPE: HD52518

#### Characteristic Properties

- Good balance between good processability and flowability

### Density: 0.950-0.954

#### Main Applications

- Housewares
- Toys , flower pots
- Injection moulding grade

### MFI: 16 - 20

#### Additives

- Thermal Antioxidant (Process Stabilizer)
- Catalyst neutralizer (acid scavenger, lubricant)

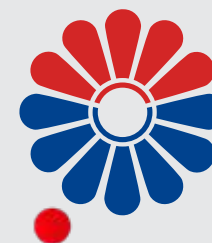
Material properties (This data are typical values and are not to be construed as product specifications.)

Resin Properties	Unit	Typical Value	Test Method
Melt Index (190°C/ 2.16Kg)	g/10 min	18	D1238
Density	g/cm <sup>3</sup>	0.952	D1505
Thermal Properties			
Vicat Softening Point	°C	121	D1525
Molded Properties			
Flectural Modulus	MPa	1200	D790
Notched Izod Impact @ 23 °C	J/m	19	D256/A
Properties on compression molded specimen obtained according to ASTM D 1928 C			



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