

LOW DENSITY POLYETHYLENE MATERIAL SAFETY DATA SHEET

SPECIFIC RISKS

: NONE

1. IDENTIFICATION

1.1 Identification of the Substance and the Company

Trade Name	Lotrène
Product Name	Low Density Polyethylene (LDPE)
Chemical Name	Polyethylene (polyethylene) homo-polymer
Chemical Family	Polyolefin
Chemical Abstract Service (CAS) Number	9002-88-4

1.2 Company Identification

Company Name	Qatar Petrochemical Company LTD (QAPCO)
Address	P.O. Box 756, Doha, Qatar
Telephone	(+974) 4242444
Telex	4361 QAPCO DH
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2. COMPOSITION/INFORMATION ON INGREDIENTS

Ethylene

This material is stabilized

3. HAZARDS IDENTIFICATION

Components of this product are not hazardous under OSHA Hazard Communication (29 CFR 1910.1200)

4. FIRST AID MEASURES

Eye Contact	Flush eyes with water if irritation occurs
Skin Contact	If contact with molten product occurs, treat as thermal burn
Ingestion	Not ordinarily required
Inhalation	Not ordinarily required

5. FIRE FIGHTING MEASURES

Extinguishing Media: Use water fog, dry chemical or CO₂.

Special Protective Equipment for Fire Fighters: Material will not burn unless preheated. Do not enter fire space without full bunker gear (helmet with face shield, bunker coats, gloves and rubber boots) including a positive pressure NIOSH* approved self-contained breathing apparatus. Cool fire exposed containers with water.

Unusual Fire and Explosion Hazard: Treat as a solid that can burn. Avoid accumulation and dispersion of dust to reduce explosion potential.

6. ACCIDENTAL RELEASE MEASURES

Methods for Cleaning Up: Shovel or sweep or use industrial vacuum cleaner. Avoid generating dust clouds. Put into containers for reclaiming or disposal as permitted by applicable national, state and local regulations. In the event of an uncontrolled release of this material, the user should determine if the release is reportable under applicable laws and regulations.

7. HANDLING AND STORAGE

7.1 Treat as solid that can burn.

Avoid breathing dusts and process fumes. Avoid accumulation and dispersion of dust to reduce explosion potential.

Adequate ventilation and/or engineering controls must be employed in high temperature processing to prevent exposure to potentially fly toxic/irritating fumes.

Equipment must be earthed to avoid static electric charge.

7.2 Storage

Store away from oxidizing materials, in a cool, dry place with adequate ventilation and absence of direct sunlight.

8. EXPOSURE CONTROLS PERSONAL PROTECTION

Respiratory Protection: Not ordinarily required. (OSHA* has established transitional occupational exposure limits for the product and/or components for this product. Refer to 29 CFR 1910.1000 for these transitional limits and requirements for meeting these limits).



Protective clothing Additional Protective	Protective clothing Additional Protective
Measures	Adequate ventilation and/or engineering controls are required when product is heated in processing to prevent exposure to potentially toxic/irritating fumes.

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point	Not Applicable
Solubility in Water	Insoluble
Melting Point	100-115 °C
Vapor Pressure	Not Applicable
Flash Point	Not Applicable
Vapor Density	Not Applicable
Relative Density	0.917 – 0.925
Odor	Negligible Odor
Percent Volatile by Volume	Nil
Appearance	Solid Translucent Granules
Auto Ignition Temperature	350 °C (ASTM D1929)
Flammability	Flammable

10. STABILITY AND REACTIVITY

Stability	Stable
Hazardous Polymerization	Will not occur
Materials to avoid	Strong Oxidizing Agents
Conditions to avoid	Temperature above 250 °C
Hazardous Decomposition Products	At processing

temperature, some degree of thermal degradation will occur. Although highly dependant, on temperature and environmental conditions, a variety of decomposition products may be present ranging from simple hydrocarbons (methane and propane) to toxic/irritating gases such as carbon monoxide & dioxide, aldehydes and other organic vapors.

11. Toxicological Information

The product is non-toxic by composition.

However, it should be treated as nuisance particulates, avoiding breathing dust or any fumes that may be generated during its processing.

A knowledge of available toxicology information and of the physical and chemical properties of this material suggests that over-exposure is unlikely to aggravate existing medical conditions.

12. ECOLOGICAL INFORMATION

The material is not biodegradable. It can be recycled using suitable technology. It doesn't contain additive compounds of lead, cadmium and chromium. Disposal must be done in accordance with existing regulations. Land filling and incineration can be considered in most cases.

13. DISPOSAL CONSIDERATION

All waste material should be packaged, labeled, transported and disposed or reclaimed in conformance with applicable laws & regulations and in conformance with good engineering practices. Reclaim when possible.

14. TRANSPORT INFORMATION

Department of Transportation Classification; Not hazardous by DOT* Regulations.

15. REGULATORY INFORMATION

Occupational Exposure Limits: There are no established limits for this product; however, polyethylene dust should be treated as nuisance particulate. OSHA* Permissible Exposure Limit (PEL) is 15 mg/m³ total dust, and 5 mg/m³ respirable dust. ACGIH* Threshold Limit Value (TLV) is 10 mg/m³ total dust.

*These are American organizations:

OSHA	=	Occupational Safety and Health Administration
ACGIH	=	American Conference of Governmental Industrial Hygienists
NIOSH	=	National Institute of Occupational Safety and Health
DOT	=	Department of Transportation

16. OTHER INFORMATION

This data sheet is an addition to the technical data sheet in use and is not a replacement. The information contained is true to our knowledge about the product and is provided sincerely. Moreover, the attention of the users is drawn to the risk possibility taken when a product is used for uses other than those for which it's intended.



Lotrène® MG 70

LOW DENSITY POLYETHYLENE

MG 70

DESCRIPTION

Lotrène® MG70 is an injection moulding grade mainly recommended for the injection of the thin and flexible items and the preparation of masterbatches.

PROPERTIES

The high Melt Flow Index of **Lotrène® MG70** leads to excellent flowability and processability. The items produced from this grade possess high flexibility and glossy surface.

PROPERTIES	VALUE	UNIT	TEST METHOD
Melt Flow Index	70	g/10 min.	ASTM D-1238
Density @ 23 °C	0.918	g/cm ³	ASTM D-1505
Crystalline Melting Point	101	°C	ASTM E-794
Vicat Softening Point	78	°C	ASTM D-1525
Tensile Strength @ Yield	6	MPa	ASTM D-638
Tensile Strength @ Break	10	MPa	ASTM D-638
Elongation @ Break	200	%	ASTM D-638
Shrinkage	1.5-2.5	%	ASTM D-955



IN JUST ABOUT EVERYTHING

Lotrène® MG 70

LOW DENSITY POLYETHYLENE

Note: The values given in this technical data sheet are the results of tests carried out in accordance with standard test procedures. They are given as indication to enable customers to make the best use of our products but must be considered as average values provided without implying any undertaking on our part.

PROCESSING

Lotrène® MG70 can be processed on all types of injection moulding machines.

The temperature and pressure used for the processing of Lotrène® MG70 are normal for the injection of low-density polyethylene of medium Melt Flow Index.

The melt temperature range suggested is between 150 °C and 170 °C. However, optimum conditions are dependant on the equipment used (presses, moulds, etc.) and the articles under production (appearance, size, shape, etc.)

APPLICATIONS

- Artificial flowers
- Metal coating
- Coating of textiles
- Masterbatches

SAFETY AND STORAGE

Under normal conditions Lotrène® MG70 does not present a toxic hazard through skin contact or inhalation. During processing, contact with molten polymer and inhalation of volatilized fumes should be avoided.

Lotrène® MG70 complies with food grade regulations FDA, 21 FR chapter 177-1520 'Olefin Polymers'. Items made from this grade do not transmit tests nor odor to the material in contact with.

Lotrène® MG70 is inflammable and combustible (category 3) according to ISO R 1210.

Lotrène® MG70 is supplied in plastic bags of 25 kg (net weight) each. The bags are stacked and shrink wrapped on pallets of 1500 kg each (net weight). The product is forwarded either by trucks or in 20-foot sea containers.

Lotrène® MG70 should not be stored for more than three months nor be exposed to direct sunlight and/or heating during storage since this may adversely affect the properties of the product.



Lotrène® MG 20

LOW DENSITY POLYETHYLENE

MG 20

DESCRIPTION

Lotrène® MG20 is an injection moulding grade mainly recommended for the injection of thin and flexible items.

PROPERTIES

The high Melt Flow Index of Lotrène® MG20 leads to good flow properties. It is ideal for filling the cavities of the complex moulds with high surface gloss.

PROPERTIES	VALUE	UNIT	TEST METHOD
Melt Flow Index	20	g/10 min.	ASTM D-1238
Density @ 23 °C	0.918	g/cm ³	ASTM D-1505
Crystalline Melting Point	104	°C	ASTM E-794
Vicat Softening Point	86	°C	ASTM D-1525
Tensile Strength @ Yield	7	MPa	ASTM D-638
Tensile Strength @ Break	9	MPa	ASTM D-638
Elongation @ Break	210	%	ASTM D-638
Shrinkage	2	%	ASTM D-955



IN JUST ABOUT EVERYTHING

Lotrène® MG 20

LOW DENSITY POLYETHYLENE

Note: The values given in this technical data sheet are the results of tests carried out in accordance with standard test procedures. They are given as indication to enable customers to make the best use of our products but must be considered as average values provided without implying any undertaking on our part.

PROCESSING

Lotrène® MG20 can be processed on all types of injection moulding machines.

The temperature and pressure used for the processing of Lotrène® MG20 are normal for the injection of low-density polyethylene of medium Melt Flow Index.

The melt temperature range suggested is between 170 °C and 240 °C. However, optimum conditions are dependant on the equipment used (presses, moulds, etc.) and the articles under production (appearance, size, shape, etc.)

APPLICATIONS

- Flexible household articles
- Lids & caps
- Flower pots
- Masterbatches

SAFETY AND STORAGE

Under normal conditions Lotrène® MG20 does not present a toxic hazard through skin contact or inhalation. During processing, contact with molten polymer and inhalation of volatilized fumes should be avoided.

Lotrène® MG20 complies with food grade regulations FDA, 21 FR chapter 177-1520 'Olefin Polymers'. Items made from this grade do not transmit tests nor odor to the material in contact with.

Lotrène® MG20 is inflammable and combustible (category 3) according to ISO R 1210.

Lotrène® MG20 is supplied in plastic bags of 25 kg (net weight) each. The bags are stacked and shrink wrapped on pallets of 1500 kg each (net weight). The product is forwarded either by trucks or in 20-foot sea containers.

Lotrène® MG20 should not be stored for more than three months nor be exposed to direct sunlight and/or heating during storage since this may adversely affect the properties of the product.



Lotrène® LA 0710

LOW DENSITY POLYETHYLENE

DESCRIPTION

Lotrène® LA0710 is mainly recommended for the extrusion coating at high speed. It contains no additives.

PROPERTIES

The suitable molecular structure of Lotrène® LA0710 allows it to be used for thin gauge coating at very high speeds onto various substrates.

Lotrène® LA0710 has good mechanical properties, low neck-in and excellent heat sealability. It has also an excellent adhesion to both porous and non-porous substrates.

POLYMER PROPERTIES	VALUE	UNIT	TEST METHOD
Melt Flow Index	8.0	g/10 min.	ASTM D-1238
Density @ 23 °C	0.918	g/cm ³	ASTM D-1505
Crystalline Melting Point	107	°C	ASTM E-794
Vicat Softening Point	86	°C	ASTM D-1525

COATING PROPERTIES	VALUE	UNIT	TEST METHOD
Minimal Coating Weight	6	g/m ²	
Neck-In	3 – 3.5	%	
Water Vapor Permeability	10 - 20	g/m ² .24h	

LA 0710



IN JUST ABOUT EVERYTHING

Lotrène® LA 0710

LOW DENSITY POLYETHYLENE

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PROCESSING

Lotrène® LA0710 can be easily processed on all standard extrusion coating machines. However, in order to obtain the best uniform thickness and width, it is advisable to use an extruder with an L/D ratio at least 20:1. The melt temperature is suggested to be in the range of 280-330 °C.

The output depends on the nature of the substrate, the thickness of the coating and the temperature of the material.

APPLICATIONS

Coating and/or Lamination of:

- Paper
- Paper board
- Aluminum
- Cellophane film
- Photographic paper
- Polymer film
- Tarapaulin
- Paper/Aluminum
- PE Film/Aluminum

SAFETY AND STORAGE

Under normal conditions Lotrène® LA0710 does not present a toxic hazard through skin contact or inhalation. During processing, contact with molten polymer and inhalation of volatilized fumes should be avoided.

Lotrène® LA0710 complies with food grade regulations FDA, 21 FR chapter 177-1520 'Olefin Polymers'. Items made from this grade do not transmit tests nor odor to the material in contact with.

Lotrène® LA0710 is inflammable and combustible (category 3) according to ISO R 1210.

Lotrène® LA0710 is supplied in plastic bags of 25 kg (net weight) each. The bags are stacked and shrink wrapped on pallets of 1500 kg each (net weight). The product is forwarded either by trucks or in 20-foot sea containers.

Lotrène® LA0710 should not be stored for more than three months nor be exposed to direct sunlight and/or heating during storage since this may adversely affect the properties of the product.



Lotrène® FE8000

LOW DENSITY POLYETHYLENE

DESCRIPTION

Lotrène® FE8000 is an additive free grade mainly recommended for the light and medium duty film application with good optical properties and medium rigidity.

PROPERTIES

Lotrène® FE8000 produces films that are very strong, sufficiently rigid for automatic packaging machines, suitable for shrink wrapping and have good optical properties.

FE 8000

POLYMER PROPERTIES	VALUE	UNIT	TEST METHOD
Melt Flow Index	0.80	g/10 min.	ASTM D-1238
Density @ 23 °C	0.923	g/cm ³	ASTM D-1505
Crystalline Melting Point	112	°C	ASTM E-794
Vicat Softening Point	95	°C	ASTM D-1525

FILM PROPERTIES	VALUE	UNIT	TEST METHOD
Tensile Strength @ Yield MD/TD	16/12	MPa	ASTM D-882
Tensile Strength @ Break MD/TD	24/22	MPa	ASTM D-882
Elongation @ Break MD/TD	500/600	%	ASTM D-882
Impact Strength, F 50	150	G	ASTM D-1709
Coefficient of Friction	0.45	-	ASTM D-1894
Haze	8.5	%	ASTM D-1003
Gloss (@ 45 °)	60	GU	ASTM D-2457
Clarity	45	%	ASTM D-1746

(The above properties are measured on a blown film of 50 µ, @ 2.5 BUR)



IN JUST ABOUT EVERYTHING

Lotrène® FE8000

LOW DENSITY POLYETHYLENE

Note: The values given in this technical data sheet are the results of tests carried out in accordance with standard test procedures. They are given as indication to enable customers to make the best use of our products but must be considered as average values provided without implying any undertaking on our part.

PROCESSING

Lotrène® FE8000 can be easily processed on all types of extruders designed for polyethylene and over a wide range of extrusion conditions.

The melt temperature is suggested to be in the range of 160-180 °C.

The best properties of the blown film are achieved at blow up ratios between 2.5:1 and 3.5:1.

To avoid blocking and shrinkage on the reel, the temperature at the nip rolls and take-off should be kept as close as possible to the ambient temperature.

The recommended thickness range is from 30 µm 200 µm.

APPLICATIONS

- Shrink wrap film for light and medium duties
- Shopping bags
- Lamination film

SAFETY AND STORAGE

Under normal conditions Lotrène® FE8000 does not present a toxic hazard through skin contact or inhalation. During processing, contact with molten polymer and inhalation of volatilized fumes should be avoided.

Lotrène® FE8000 complies with food grade regulations FDA, 21 FR chapter 177-1520 'Olefin Polymers'. Items made from this grade do not transmit tests nor odor to the material in contact with.

Lotrène® FE8000 is inflammable and combustible (category 3) according to ISO R 1210.

Lotrène® FE8000 is supplied in plastic bags of 25 kg (net weight) each. The bags are stacked and shrink wrapped on pallets of 1500 kg each (net weight). The product is forwarded either by trucks or in 20-foot sea containers.

Lotrène® FE8000 should not be stored for more than three months nor be exposed to direct sunlight and/or heating during storage since this may adversely affect the properties of the product.



Lotrène® FD0474

LOW DENSITY POLYETHYLENE

DESCRIPTION

Lotrène® F0474 is mainly recommended for the extrusion of very high clarity blown and cast films. It contains high slip and anti block additives.

PROPERTIES

The molecular structure of Lotrène® F0474 provides excellent clarity, high gloss and low haze films. This structure also leads to excellent processability.

POLYMER PROPERTIES	VALUE	UNIT	TEST METHOD
Melt Flow Index	4.0	g/10 min.	ASTM D-1238
Density @ 23 °C	0.923	g/cm ³	ASTM D-1505
Crystalline Melting Point	112	°C	ASTM E-794
Vicat Softening Point	93	°C	ASTM D-1525

FILM PROPERTIES	VALUE	UNIT	TEST METHOD
Tensile Strength @ Yield MD/TD	15/11	MPa	ASTM D-882
Tensile Strength @ Break MD/TD	18/15	MPa	ASTM D-882
Elongation @ Break MD/TD	400/550	%	ASTM D-882
Impact Strength, F 50	100	G	ASTM D-1709
Coefficient of Friction	0.12	-	ASTM D-1894
Haze	6.0	%	ASTM D-1003
Gloss (@ 45 °)	80	GU	ASTM D-2457
Clarity	90	%	ASTM D-1746

(The above properties are measured on a blown film of 50 µ, @ 2.5 BUR)

FD0474



IN JUST ABOUT EVERYTHING

Lotrène® FD0474

LOW DENSITY POLYETHYLENE

Note: The values given in this technical data sheet are the results of tests carried out in accordance with standard test procedures. They are given as indication to enable customers to make the best use of our products but must be considered as average values provided without implying any undertaking on our part.

PROCESSING

Lotrène® F0474 can be easily processed on all types of extruders designed for polyethylene.

The melt temperature is suggested to be in the range of 140-150 °C.

The best and balanced properties of the blown film are achieved at blow up ratios between 2.5:1 and 3.5:1.

To avoid blocking and shrinkage on the reel, the temperature at the nip rolls and take-off should be kept as close as possible to the ambient temperature.

The recommended thickness range is from 15 µm 100 µm.

APPLICATIONS

- High-clarity film for packaging
- Luxury goods
- Flowers
- Clothing
- Frozen food
- Laundry film
- Display film

SAFETY AND STORAGE

Under normal conditions Lotrène® F0474 does not present a toxic hazard through skin contact or inhalation. During processing, contact with molten polymer and inhalation of volatilized fumes should be avoided.

Lotrène® F0474 complies with food grade regulations FDA, 21 FR chapter 177-1520 'Olefin Polymers'. Items made from this grade do not transmit tests nor odor to the material in contact with.

Lotrène® F0474 is inflammable and combustible (category 3) according to ISO R 1210.

Lotrène® F0474 is supplied in plastic bags of 25 kg (net weight) each. The bags are stacked and shrink wrapped on pallets of 1500 kg each (net weight). The product is forwarded either by trucks or in 20-foot sea containers.

Lotrène® F0474 should not be stored for more than three months nor be exposed to direct sunlight and/or heating during storage since this may adversely affect the properties of the product.

FD0474



Lotrène® FD0374

LOW DENSITY POLYETHYLENE

DESCRIPTION

Lotrène® F0374 is mainly recommended for the extrusion of very thin film for light duty applications. It contains both slip agent and anti blocking additives.

PROPERTIES

The molecular structure of Lotrène® F0374 provides excellent clarity, high gloss and low haze films. It also leads to excellent processability and draw down.

POLYMER PROPERTIES	VALUE	UNIT	TEST METHOD
Melt Flow Index	3.5	g/10 min.	ASTM D-1238
Density @ 23 °C	0.923	g/cm ³	ASTM D-1505
Crystalline Melting Point	109	°C	ASTM E-794
Vicat Softening Point	93	°C	ASTM D-1525

FILM PROPERTIES	VALUE	UNIT	TEST METHOD
Tensile Strength @ Yield MD/TD	12/10	MPa	ASTM D-882
Tensile Strength @ Break MD/TD	19/21	MPa	ASTM D-882
Elongation @ Break MD/TD	450/550	%	ASTM D-882
Impact Strength, F 50	100	G	ASTM D-1709
Coefficient of Friction	0.09	-	ASTM D-1894
Haze	6.5	%	ASTM D-1003
Gloss (@ 45 °)	75	GU	ASTM D-2457
Clarity	85	%	ASTM D-1746

(The above properties are measured on a blown film of 50 μ, @ 2.5 BUR)

FD0374



IN JUST ABOUT EVERYTHING

Lotrène® FD0374

LOW DENSITY POLYETHYLENE

Note: The values given in this technical data sheet are the results of tests carried out in accordance with standard test procedures. They are given as indication to enable customers to make the best use of our products but must be considered as average values provided without implying any undertaking on our part.

PROCESSING

Lotrène® F0374 can be easily processed on all types of extruders to make blown or cast films.

The melt temperature is suggested to be in the range of 140-150 °C.

The best properties of the blown film are achieved at blow up ratios between 2.5:1 and 3.5:1.

To avoid blocking and shrinkage on the reel, the temperature at the nip rolls and take-off should be kept as close as possible to the ambient temperature.

The recommended thickness range is from 20 µm 100 µm.

APPLICATIONS

- Film for light duty packaging
- Laundry film
- Display film
- Bread bags
- Garment & newspaper film

SAFETY AND STORAGE

Under normal conditions Lotrène® F0374 does not present a toxic hazard through skin contact or inhalation. During processing, contact with molten polymer and inhalation of volatilized fumes should be avoided.

Lotrène® F0374 complies with food grade regulations FDA, 21 FR chapter 177-1520 'Olefin Polymers'. Items made from this grade do not transmit tests nor odor to the material in contact with.

Lotrène® F0374 is inflammable and combustible (category 3) according to ISO R 1210.

Lotrène® F0374 is supplied in plastic bags of 25 kg (net weight) each. The bags are stacked and shrink wrapped on pallets of 1500 kg each (net weight). The product is forwarded either by trucks or in 20-foot sea containers.

Lotrène® F0374 should not be stored for more than three months nor be exposed to direct sunlight and/or heating during storage since this may adversely affect the properties of the product.

FD0374



Lotrène® FD0274

LOW DENSITY POLYETHYLENE

DESCRIPTION

Lotrène® F0274 is mainly recommended for the extrusion of thin film for light and medium duty applications. It contains both slip agent and anti blocking additives.

PROPERTIES

The suitable molecular structure of Lotrène® F0274 makes it possible to produce very thin, clear and glossy films.

Lotrène® F0274 gives films of especially good dimensional stability with easy sealing no matter what type of machine is used.

POLYMER PROPERTIES	VALUE	UNIT	TEST METHOD
Melt Flow Index	2.4	g/10 min.	ASTM D-1238
Density @ 23 °C	0.923	g/cm ³	ASTM D-1505
Crystalline Melting Point	111	°C	ASTM E-794
Vicat Softening Point	94	°C	ASTM D-1525

FILM PROPERTIES	VALUE	UNIT	TEST METHOD
Tensile Strength @ Yield MD/TD	14/11	MPa	ASTM D-882
Tensile Strength @ Break MD/TD	22/21	MPa	ASTM D-882
Elongation @ Break MD/TD	470/570	%	ASTM D-882
Impact Strength, F 50	110	G	ASTM D-1709
Coefficient of Friction	0.10	-	ASTM D-1894
Haze	6.5	%	ASTM D-1003
Gloss (@ 45 °)	75	GU	ASTM D-2457
Clarity	85	%	ASTM D-1746

(The above properties are measured on a blown film of 50 µ, @ 2.5 BUR)

FD0274



IN JUST ABOUT EVERYTHING

Lotrène® FD0274

LOW DENSITY POLYETHYLENE

Note: The values given in this technical data sheet are the results of tests carried out in accordance with standard test procedures. They are given as indication to enable customers to make the best use of our products but must be considered as average values provided without implying any undertaking on our part.

PROCESSING

Lotrène® F0274 can be easily processed on all types of extruders to make blown or cast films.

The melt temperature is suggested to be in the range of 140-150 °C.

The best properties of the blown film are achieved at blow up ratios between 2.5:1 and 3.5:1.

To avoid blocking and shrinkage on the reel, the temperature at the nip rolls and take-off should be kept as close as possible to the ambient temperature. The recommended thickness range is from 25 µm 100 µm.

APPLICATIONS

- Thin transparent film
- Food Packaging
- High clarity film
- Lamination film

SAFETY AND STORAGE

Under normal conditions Lotrène® F0274 does not present a toxic hazard through skin contact or inhalation. During processing, contact with molten polymer and inhalation of volatilized fumes should be avoided.

Lotrène® F0274 complies with food grade regulations FDA, 21 FR chapter 177-1520 'Olefin Polymers'. Items made from this grade do not transmit tests nor odor to the material in contact with.

Lotrène® F0274 is inflammable and combustible (category 3) according to ISO R 1210.

Lotrène® F0274 is supplied in plastic bags of 25 kg (net weight) each. The bags are stacked and shrink wrapped on pallets of 1500 kg each (net weight). The product is forwarded either by trucks or in 20-foot sea containers.

Lotrène® F0274 should not be stored for more than three months nor be exposed to direct sunlight and/or heating during storage since this may adversely affect the properties of the product.

FD0274



Lotrène® FD0270

LOW DENSITY POLYETHYLENE

DESCRIPTION

Lotrène® F0270 is an additive free grade mainly recommended for extrusion of thin film for light and medium duty applications.

PROPERTIES

The suitable molecular structure of Lotrène® F0270 makes it possible to produce very thin, clear and glossy films.

Lotrène® F0270 gives films of especially good dimensional stability with easy sealing no matter what type of machine is used.

POLYMER PROPERTIES	VALUE	UNIT	TEST METHOD
Melt Flow Index	2.4	g/10 min.	ASTM D-1238
Density @ 23 °C	0.923	g/cm ³	ASTM D-1505
Crystalline Melting Point	111	°C	ASTM E-794
Vicat Softening Point	94	°C	ASTM D-1525

FILM PROPERTIES	VALUE	UNIT	TEST METHOD
Tensile Strength @ Yield MD/TD	12/11	MPa	ASTM D-882
Tensile Strength @ Break MD/TD	22/20	MPa	ASTM D-882
Elongation @ Break MD/TD	550/600	%	ASTM D-882
Impact Strength, F 50	110	G	ASTM D-1709
Coefficient of Friction	0.45	-	ASTM D-1894
Haze	6.5	%	ASTM D-1003
Gloss (@ 45 °)	75	GU	ASTM D-2457
Clarity	85	%	ASTM D-1746

(The above properties are measured on a blown film of 50 µ, @ 2.5 BUR)

FD0270



IN JUST ABOUT EVERYTHING

Lotrène® FD0270

LOW DENSITY POLYETHYLENE

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PROCESSING

Lotrène® F0270 can be easily processed on all types of extruders to make blown or cast films.

The melt temperature is suggested to be in the range of 140-150 °C.

The best properties of the blown film are achieved at blow up ratios between 2.5:1 and 3.5:1.

To avoid blocking and shrinkage on the reel, the temperature at the nip rolls and take-off should be kept as close as possible to the ambient temperature. The recommended thickness range is from 25 µm 100 µm.

APPLICATIONS

- High clarity bags
- Thin shrink film
- Lamination film
- Foamed products

SAFETY AND STORAGE

Under normal conditions Lotrène® F0270 does not present a toxic hazard through skin contact or inhalation. During processing, contact with molten polymer and inhalation of volatilized fumes should be avoided.

Lotrène® F0270 complies with food grade regulations FDA, 21 FR chapter 177-1520 'Olefin Polymers'. Items made from this grade do not transmit tests nor odor to the material in contact with.

Lotrène® F0270 is inflammable and combustible (category 3) according to ISO R 1210.

Lotrène® F0270 is supplied in plastic bags of 25 kg (net weight) each. The bags are stacked and shrink wrapped on pallets of 1500 kg each (net weight). The product is forwarded either by trucks or in 20-foot sea containers.

Lotrène® F0270 should not be stored for more than three months nor be exposed to direct sunlight and/or heating during storage since this may adversely affect the properties of the product.

FD0270



Lotrène® FB5026

LOW DENSITY POLYETHYLENE

DESCRIPTION

Lotrène® FB5026 is mainly recommended for heavy duty film applications with good optical properties. It contains additive that gives good slip properties.

PROPERTIES

The suitable molecular structure of Lotrène® FB5026 makes it possible to produce very thin, clear and glossy films.

Lotrène® FB5026 produces films that are very strong, sufficiently rigid for automatic packaging machines, suitable for shrink wrapping and have good dimensional stability.

POLYMER PROPERTIES	VALUE	UNIT	TEST METHOD
Melt Flow Index	0.60	g/10 min.	ASTM D-1238
Density @ 23 °C	0.920	g/cm ³	ASTM D-1505
Crystalline Melting Point	108	°C	ASTM E-794
Vicat Softening Point	93	°C	ASTM D-1525

FILM PROPERTIES	VALUE	UNIT	TEST METHOD
Tensile Strength @ Yield MD/TD	14/11	MPa	ASTM D-882
Tensile Strength @ Break MD/TD	24/24	MPa	ASTM D-882
Elongation @ Break MD/TD	550/600	%	ASTM D-882
Impact Strength, F 50	200	G	ASTM D-1709
Coefficient of Friction	0.20	-	ASTM D-1894
Haze	11	%	ASTM D-1003
Gloss (@ 45 °)	45	GU	ASTM D-2457
Clarity	45	%	ASTM D-1746

(The above properties are measured on a blown film of 50 µ, @ 2.5 BUR)

FB5026



IN JUST ABOUT EVERYTHING

Lotrène® FB5026

LOW DENSITY POLYETHYLENE

Note: The values given in this technical data sheet are the results of tests carried out in accordance with standard test procedures. They are given as indication to enable customers to make the best use of our products but must be considered as average values provided without implying any undertaking on our part.

PROCESSING

Lotrène® FB5026 can be easily processed on all types of extruders designed for polyethylene.

The melt temperature is suggested to be in the range of 160-180 °C.

The best properties of the blown film are achieved at blow up ratios between 2.5:1 and 3.5:1.

To avoid blocking and shrinkage on the reel, the temperature at the nip rolls and take-off should be kept as close as possible to the ambient temperature. The recommended thickness range is from 40 µm 200 µm.

APPLICATIONS

- Shopping bags
- Medium duty carrier bags
- Milk bags (pouches)
- Industrial liners

SAFETY AND STORAGE

Under normal conditions Lotrène® FB5026 does not present a toxic hazard through skin contact or inhalation. During processing, contact with molten polymer and inhalation of volatilized fumes should be avoided.

Lotrène® FB5026 complies with food grade regulations FDA, 21 FR chapter 177-1520 'Olefin Polymers'. Items made from this grade do not transmit tests nor odor to the material in contact with.

Lotrène® FB5026 is inflammable and combustible (category 3) according to ISO R 1210.

Lotrène® FB5026 is supplied in plastic bags of 25 kg (net weight) each. The bags are stacked and shrink wrapped on pallets of 1500 kg each (net weight). The product is forwarded either by trucks or in 20-foot sea containers.

Lotrène® FB5026 should not be stored for more than three months nor be exposed to direct sunlight and/or heating during storage since this may adversely affect the properties of the product.



Lotrène® FB3003

LOW DENSITY POLYETHYLENE

DESCRIPTION

Lotrène® FB3003 is an additive free grade mainly recommended for heavy duty film applications.

PROPERTIES

Lotrène® FB3003 has a suitable molecular structure to produce film with excellent mechanical properties, outstanding shrink properties. It has a high stress cracking resistance.

POLYMER PROPERTIES	VALUE	UNIT	TEST METHOD
Melt Flow Index	0.30	g/10 min.	ASTM D-1238
Density @ 23 °C	0.920	g/cm ³	ASTM D-1505
Crystalline Melting Point	109	°C	ASTM E-794
Vicat Softening Point	95	°C	ASTM D-1525

FILM PROPERTIES	VALUE	UNIT	TEST METHOD
Tensile Strength @ Yield MD/TD	16/11	MPa	ASTM D-882
Tensile Strength @ Break MD/TD	25/25	MPa	ASTM D-882
Elongation @ Break MD/TD	550/600	%	ASTM D-882
Impact Strength, F 50	220	G	ASTM D-1709
Coefficient of Friction	0.50	-	ASTM D-1894
Haze	13	%	ASTM D-1003
Gloss (@ 45 °)	40	GU	ASTM D-2457
Clarity	25	%	ASTM D-1746

(The above properties are measured on a blown film of 50 µ, @ 2.5 BUR)

FB3003



IN JUST ABOUT EVERYTHING

Lotrène® FB3003

LOW DENSITY POLYETHYLENE

Note: The values given in this technical data sheet are the results of tests carried out in accordance with standard test procedures. They are given as indication to enable customers to make the best use of our products but must be considered as average values provided without implying any undertaking on our part.

PROCESSING

Lotrène® FB3003 can be easily processed on all types of extruders designed for polyethylene.

The melt temperature is suggested to be in the range of 180-210 °C.

The best properties of the blown film are achieved at blow up ratios between 2.5:1 and 3.5:1.

To avoid blocking and shrinkage on the reel, the temperature at the nip rolls and take-off should be kept as close as possible to the ambient temperature.

The recommended thickness range is from 50 µm 250 µm.

APPLICATIONS

- Heavy duty bags
- Industrial shrink film
- Shrink films for pallets shrink wrap
- Construction film
- Agricultural film
- Drip irrigation pipe
- Blow moulded bottles (< 250 ml >)
- Cable jacketing

SAFETY AND STORAGE

Under normal conditions Lotrène® FB3003 does not present a toxic hazard through skin contact or inhalation. During processing, contact with molten polymer and inhalation of volatilized fumes should be avoided.

Lotrène® FB3003 complies with food grade regulations FDA, 21 FR chapter 177-1520 'Olefin Polymers'. Items made from this grade do not transmit tests nor odor to the material in contact with.

Lotrène® FB3003 is inflammable and combustible (category 3) according to ISO R 1210.

Lotrène® FB3003 is supplied in plastic bags of 25 kg (net weight) each. The bags are stacked and shrink wrapped on pallets of 1500 kg each (net weight). The product is forwarded either by trucks or in 20-foot sea containers.

Lotrène® FB3003 should not be stored for more than three months nor be exposed to direct sunlight and/or heating during storage since this may adversely affect the properties of the product.

FB3003

