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CATALOGUE 2021-2022
TECHNICAL & APPLICATION





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- 126 ABS-Rubber Plant**
Product Specification
- 128 F332
- 130 E332
- 132 L322
- 134 F232
- 136 B432/E
- 138 B532/E
- 140 B732/E
- 142 D232/M3
- 146 SOLT6302
- 148 SOLT161B
- 150 SOLT6306
- 152 SOLB183
- 154 InteneP30
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★ Innovations in the products of Company are shown with the symbol.



▶ ABOUT SHANLI

Shanli Group is at the forefront of providing high quality products and business services at reasonable prices and trying to establish long-term cooperation with customers

Shanli Holding has factories, trading companies and food distribution companies in Iran, Russia, Turkey, Iraq and Romania, Georgia, Azerbaijan and the British Virgin Islands

This group is active as a leading and well-known international company in providing all the necessary services and equipment for the industry, petrochemical and food distribution sectors





OLEFIN PLANT



Products Specification of Olefin plant

Total Nominal Capacity

2174.4 1000 T/Y

Ethylene

Nominal Capacity | 1000 T/Y

1345

Applications

Polyethylene, PVC

Propylene

Nominal Capacity | 1000 T/Y

305

Applications

Polypropylene

C₄ cut

Nominal Capacity | 1000 T/Y

265

Applications

Feed for downstream plant

Pyrolysis Gasoline

Nominal Capacity | 1000 T/Y

216

Applications

To Aromatic Plant

Fuel Oil

Nominal Capacity | 1000 T/Y

38

Applications

Feed for downstream plant

Hydrogen

Nominal Capacity | 1000 T/Y

1.5

Applications

For hydrogenation

Methane

Nominal Capacity | 1000 T/Y

3.9

Applications

Fuel



Is a simple olefin, the chemical formula is C_2H_4 , has a prominent role in the petrochemical industry. It is colorless flammable gas.

Component	Specification	
Ethylene	99.9	vol % min
Methane + Ethane	1000	ppm vol max
Ethane	500	ppm vol max
Acetylene	5	ppm vol max
C3 & Higher	10	ppm vol max
Carbon Monoxide	2	ppm vol max
Carbon Dioxide	5	ppm vol max
Water	10	ppm vol max
Oxygen	5	ppm vol max
Hydrogen	10	ppm vol max
Nitrogen	100	ppm vol max
Oxygenated Compounds	10	ppm vol max
Basic Nitrogen Compound Calculated as NH3	1	ppm vol max
Total sulphur	2	mg/kg max
Methanol	0.5	ppm vol max
Total Combined Nitrogen	0.2	ppm vol max
COS	0.02	ppm vol max
Mercaptans	0.3	ppm vol max

Ethylene





Propylene

Also called propane, a colorless, flammable, gaseous hydrocarbon, C₃H₈, obtained from low molecular weight constituents of petroleum.

Component	Unit	Specification
Propylene	% vol	min 99.8
Propane	% vol	max 0.2 %
Hydrogen	ppm vol	max 5
Ethylene	ppm vol	max 1
Butenes	ppm vol	max 1
Pentenes	ppm vol	max 1
Non-condensables	ppm vol	max 20
Ethane	ppm vol	max 20
Butane-pentanes	ppm vol	max 10
C6-C12 Hydrocarbons	ppm vol	max 1
Acetylene	ppm vol	max 1
Methyl-acetylene	ppm vol	max 1
Propadiene	ppm vol	max 1

Component	Unit	Specification
Butadiene	ppm vol	max 10
Oxygen	ppm vol	max 2
Carbon Monoxide	ppm vol	max 0.03
Carbon Dioxide	ppm vol	max 2
COS	ppm vol	max 0.02
Total sulphur	ppm wt	max 1
Methanol	ppm vol	max 5
Isopropanol	ppm vol	max 5
Water	ppm wt	max 2
Arsine	ppm vol	max 0.01
Phosphine	ppm vol	max 0.01
Ammonia	ppm wt	max 1
Cyclopentadiene	ppm vol	max 0.05



Pyrolysis Gasoline

Pyrolysis gasoline, is a naphtha-range product with a high aromatics content used either for gasoline blending or as a feed stock for aromatics plants.

Component	Unit	Specification	Analysis Method
Aromatics	wt%	max 50	
Benzene	wt%	max 30	
Toluene	wt%	...	
Density at 15.6C	gr/cm ³	0.8-0.84	ASTM D4052
FBP	°C	max 225	ASTM D86
IBP	°C	min 33	ASTM D86
R.V.P	kpa	40-65	ASTM D6378
Paraffines	wt%	max 21	
Isoparaffines	wt%	max 21	
Naphtenes	wt%	max 2	
Olefins	wt%	max 20	
Total Sulfur	mg/kg	350	ASTM D5453
Gum Content	mg/100ml	max 50	
Lead Content	ppb	max 30	
Water Content		...	ASTM E203

Component	Unit	Specification	Analysis Method
Unknown	wt%	...	
Residue	wt%	...	ASTM D86
5% Recovery	°C	min 45	ASTM D86
10% Recovery	°C	...	ASTM D86
20% Recovery	°C	...	ASTM D86
30% Recovery	°C	...	ASTM D86
40% Recovery	°C	...	ASTM D86
50% Recovery	°C	...	ASTM D86
60% Recovery	°C	...	ASTM D86
70% Recovery	°C	...	ASTM D86
80% Recovery	°C	...	ASTM D86
90% Recovery	°C	min 175	ASTM D86
Recovery	°C	...	ASTM D86
Color Sybolt		-16	

C4 Cut



C4 Cut produced in Ethylene production plants by steam cracking of naphtha. It is a mixture of C₄ hydrocarbons mainly 1,3-butadiens, Iso Butene, Butane.

Component	Specification
1,3-Butadiene	45.1 %wt
Methyl-Acetylene	0.12 %wt
Propadiene	0.02 %wt
Propylene	0.1 %wt
Propane	0.03 %wt
Vinyl-Acetylene	1.13 %wt
i-Butene	19.2 %wt
1 Butene	9.16 %wt
Cis2-Butene	1.86 %wt
Trans2-Butene	2.58 %wt
i-Butane	3.94 %wt
n-Butane	16.56 %wt
C5-diolefins	0.06 %wt
Pentenes	0.1 %wt
Pentanes	0.02 %wt
2-methyl-butene	0.03 %wt



Pyrolysis gasoline, is a naphtha-range product with a high aromatics content used either for gasoline blending or as a feed stock for aromatics plants.

TEST/COMPOSITION	VALUE
Flash point	> 60 °C
Viscosity	approx > 40 cP at 80 °C



Fuel Oil

BUTADIENE PLANT

BD & B1 Products





Butadiene

1,3-Butadiene is a simple diene with the formula C₄H₆. It is an important industrial chemical used as a monomer in the production of synthetic rubber. Annual production 115,000 tons.

lysis	Unit	Specification	Analysis Method
1,3 - Butadiene	wt %	Min. 99.5	ASTM D 2593
1,2 - Butadiene	wt ppm	Max. 100	ASTM D 2593
Total Butenes	wt %	Max. 0.5	ASTM D 2593
Total Acetylenes	wt ppm	Max. 60	ASTM D 2593
TBC	wt ppm	50-200	BASF's method
Dimer (VCH)	wt %	Max. 0.1	ASTM D 2426
Peroxides	wt ppm	Max. 5	BASF's method
Non Volatile Residue	wt %	Max. 0.1	BASF's method
Total Sulfur	wt ppm	Max. 5	ASTM D 5453
Oxygen in Vapor Phase	mol %	Max. 0.2	PORTABLE TRACE OXYGEN ANALYZER



Butene-1

Butene-1 is a linear alpha-olefin with the formula C₄H₈ and used as a co-monomer for the production of HDPE & LLDPE and manufacturing of polybutene. Annual production 100,000 tons

lysis	Unit	Specification	Analysis Method
Butene-1	wt %	Min. 99.5	ASTM D 4424
C6+	wt ppm	Max. 100	ASTM D 4424
C4s (Butenes + Butanes)	wt %	Max. 0.5	ASTM D 4424
Ethylene	wt ppm	Max. 500	ASTM D 4424
Ethane	wt ppm	Max. 100	ASTM D 4424
Acetylenes	wt ppm	Max. 15	ASTM D 4424
1,3-Butadiene	wt ppm	Max. 20	ASTM D 4424
Carbon monoxide	wt ppm	Max. 1	ISO 6381-1981
Carbon dioxide	wt ppm	Max. 1	ISO 6381-1981
Water	wt ppm	Max. 15	ASTM D 2029
Total Sulphur	wt ppm	Max. 1	ASTM D 5453

HDPE PLANT

Producing Plants and Products





Products Specification of
HDPE Plant

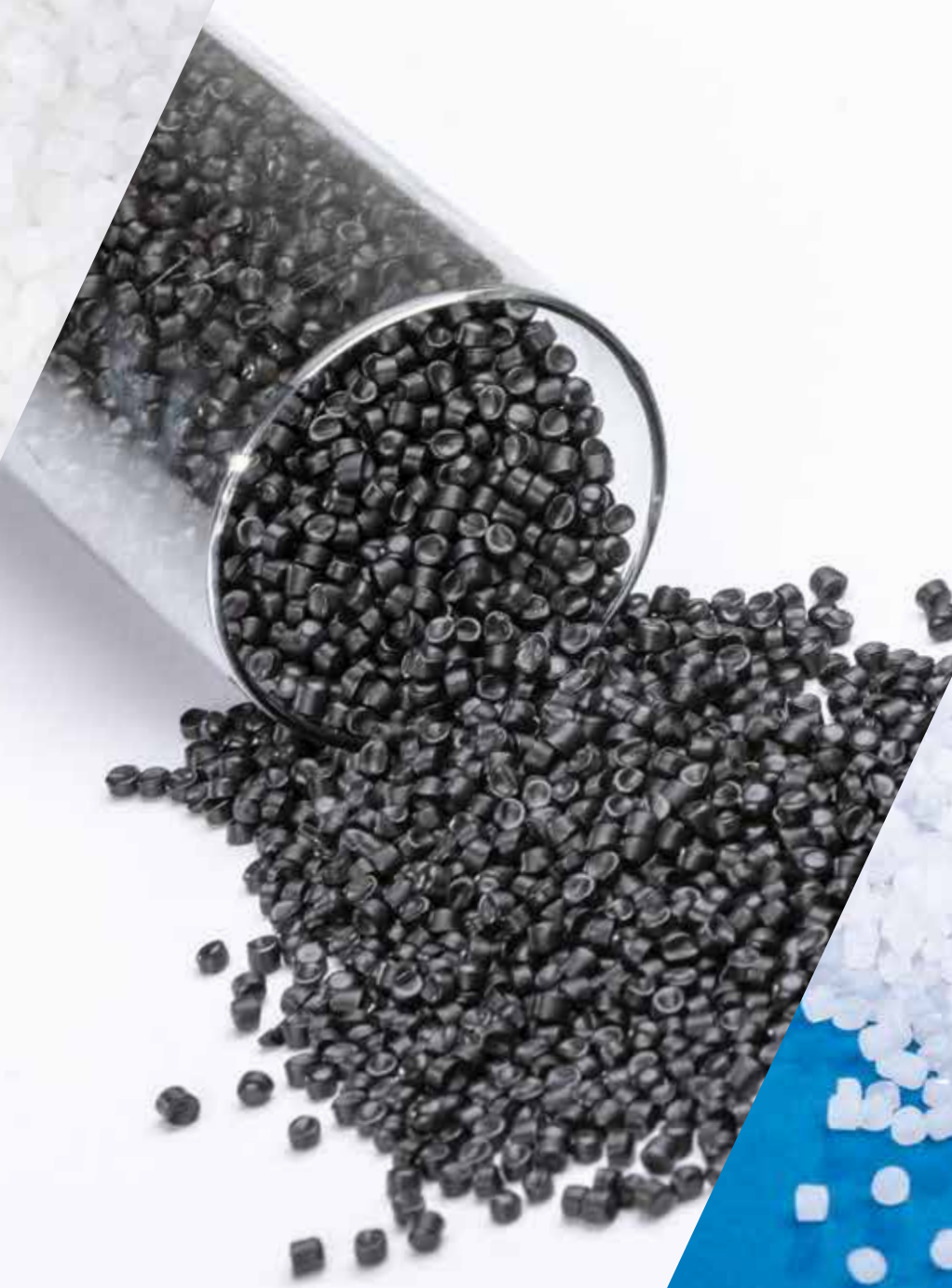
Property: MFR (190°c/5 kg)
Unit: g/10 min
ASTM Method: D1238
Internal Method: 17066
Density: kg/m³
ISO1183

Grades	Application	Processing Method	
1. INJECTION MOLDING			
HC 7260 (I3/UV)	• For transport and stacking bottle crates, particularly bottle crates	23±3	960±2
HD 7255 (I4/UV)	• For thick walled highly stressed transport container, e.g. refuse bins and fish crates	11±2	954±2
2. SMALL BLOW MOLDING			
HF 4750	• For disinfectant bottles up to 2 liters • Tubes for cosmetics, containers up to 10 liters and petrol cans up to 5 liters	1.1±0.3	944±2
Available HF4760 (BL3)	• For container with capacities ranging from a few ml up to 10 liters also for production of sheets for thermoforming	1.2±0.3	954±2
HH 4765	• For hollow articles where high stress cracking resistance is not demanded, such as bottles and caisters up to 10 liters, e.g. for fabric softeners	1.5±0.3	959±2
3. LARGE BLOW MOLDING			
Available HM8355 (BL4)	• General-purpose grade for large containers up to 100 liters	0.35±0.06	951±2
4. STRETCHED TAPE (RAFFIA)			
HF 7740 F	• Stretched films and tapes for production of high-strength knitted and woven	1.8±0.3	944±2
HF 7740 F2	• Tapes to be used for agricultural packagings and as protective cover	1.8±0.3	944±2
5. MONOFILAMENT			
HF 7750 M	• Production of monofilaments with high tensile strength	2.5±0.3	956±2
HF 7750 M2	• Monofilaments for fishing notes, geo textiles and civil engineering	3.3±0.3	956±2
6. CABLE			
HF 4750 K	• Cable insulation	3.5±0.5	946±2



Products Specification of
HDPE Plant

Grades	Application	Processing Method	
7. PIPE (NATURAL/COLOR)			
Available HM5010T2N (EX3)	• 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)	0.45±0.06	945±2
HM5010T3N	• High-quality PE 80 pressure pipes for gas and water transportation (UV stabilization and pigments during processing)	0.43±0.03	944±2
HM5010T3 Black			954±2
Available HMCRP100N (PE100)	• Top quality PE 100 pressure pipes for gas and water transportation at higher pressures or with thinner walls as PE 80 (UV stabilization and/or pigments during processing)	0.22±0.03	948±2
Available HMCRP100B (Black)			957±2
HM CRP 100 Blue			948±2
HM CRP 100 O/Y			949±2
8. FILM			
HM 9455 F	• For blown films with paperlike quality	0.28±0.05	956±2
Available HM9450F (EX5)			949±2
HM 9450 F1	• Suitable for counter, bags, carrier bags and wrapping films	0.22±0.05	950±2
HM 9455 F1	• Excellent processing		957±2
HM 9445 HT		0.18±0.03	944±2





HF4760 (BL3)

HF-4760(BL3) is a blow molding grade resin with high density polyethylene with 1-Butene as co monomer which is manufactured by the suspension polymerization of ethylene monomer. Stiffness, good ESCR are its special properties. High rigidity and good flowability which made it proper for usage in bottles and small blow molding 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/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

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(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/cm ³	0.954	ISO 1183
Molded Properties	Unit	Typical Value	Test Method
Notched Impact @ 23 °C	mJ/mm ²	9	ISO 179/ 1 eA

APPLICATIONS





HM8355 (BL4)

HM-8355(BL4) is a Blow molding grade resin which is manufactured by suspension polymerization of ethylene monomer. HM-8355 (BL4) is a bi-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 Strength
- 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 up to 100 liters.

MFR: 190/5: 0.29-0.41

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
Melt Index (2.16)	g/10 min	9.5	ISO 1133
Melt Index (5)	g/10 min	0.35	ISO 1133
FRR (21.6/5)		27	
Density	g/cm ³	0.951	ISO 1183
Swell Ration	%	110	
Molded Properties	Unit	Typical Value	Test Method
Notched Impact @ 23 °C	mJ/mm ²	10	ISO 179/ 1 eA

APPLICATIONS





HM5010T2N (EX3)

HM-5010T2N (EX3) is a pipe grade resin which is manufactured by 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)

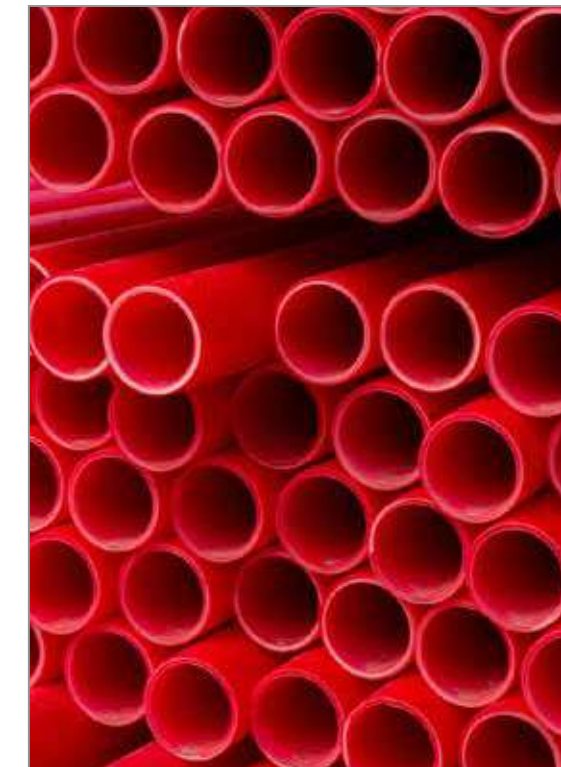
MFR: 190/5: 0.39-0.51 Additives

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

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 (2.16)	g/10 min	12	ISO 1133
Melt Index (5)	g/10 min	0.45	ISO 1133
FRR (21.6/5)	-	27	-
Density	g/cm ³	0.945	ISO 1183
Molded Properties	Unit	Typical Value	Test Method
Notched Impact @ 23 °C	mJ/mm ²	12	ISO 179/ 1 eA
Mechanical Properties	Unit	Typical Value	Test Method
Hydrostatic Strength (80 °C)	h	(4.0 N/mm ²) 1000	ISO 1167

APPLICATIONS





HMCRP100N (PE100)

HM-CRP100N (PE100) is a natural pipe grade resin which 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: HMCRP100N (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

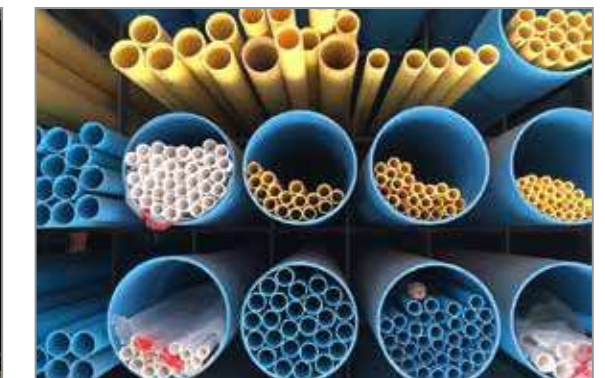
- Antioxidant/Process stabilizer
- Lubricant (processing aid)/ acid scavenger

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

Test/Composition	Typical Value	Unit	ASTM Method
Density	0.948	g/ml ³	ISO1183
FRR 21.6/5	28		
Hydrostatic Strength (80°C)	5000 (4.5N/mm2)	h	ISO1167
MFR190°/21.6	6.2	g/10 min	ISO1133
MFR190°/5	0.22	g/10 min	ISO1133
Notched Impact (23°C)	24	kJ/mm ²	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

APPLICATIONS



HMCRP100B (Black)



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-model high density polyethylene with 1-Butene as comonomer.

HDPE: HMCRP100 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 than PE80

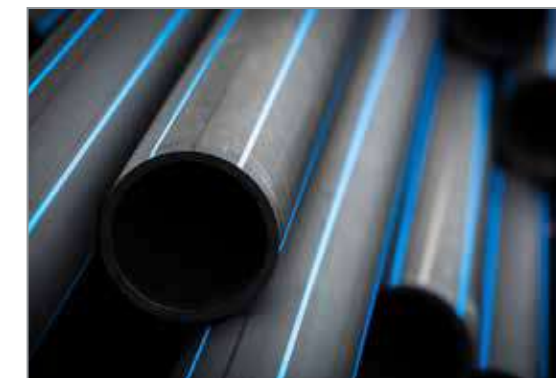
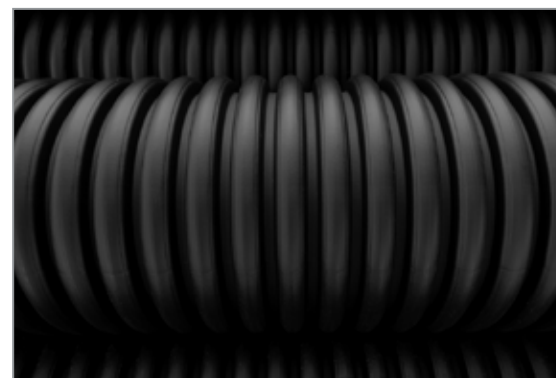
MFR: 190/5: 0.20-0.24

Additives

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

Resin Properties	Unit	Value	Test Mode
Melt Flow Rate (MFR)			
190°/5 kg	g/10 min	0.22±0.02	ISO1133
190°/21.6 kg	g/10 min	6.2±1.0	
FRR 21.6/5		28±3	
Density	g/cm ³	0.957±0.002	ISO1183
Mechanical Properties			
Tensile Test			
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 ²	> 24	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
Pipe Properties			
MRS Classification	MPa	10	ISO9080
Notched Pipe Test, SCG at 4.6MPa, 80 °C	hr	> 500	ISO13479
Creep Rapture Strength <small>Internal Pressure test at 20 C and 12.4 MPa</small>	hr	> 200	ISO1167
Burst test	Ductile Failure		ASTM D1599
Thermal Properties			
OIT at 210 °C	min	> 30	ISO11357
Melting Point	°C	131±2	ASTM D3418
Pigmentation			
Carbon Black dispersion	Grade	< 3	ISO18553
Carbon Black content	2.0-2.5	%	ISO6964

APPLICATIONS





HM9450F (EX5)

HM-9450F (EX5) is blown film grade resin which is manufactured by suspension polymerization of ethylene 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, 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 scavenge

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

Test/Composition	Typical Value	Unit	ASTM Method
Density	0.949	g/cm ³	ISO1183
Fish Eye Note	<3	note	Internal
FRR 21.6/5	29	h	
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

APPLICATIONS



LLDPE PLANT

Producing Plants and Products





Products Specification of
LLDPE Plant

Property: MFR (190oC/2.16 kg)
Unit: g/10 min
ASTM Method: D1238
Internal Method: 17066 / 17004

Grades	Application	Processing Method	
1- LLDPE Butene			
Available LL235F6 ★	Heavy duty Films, General Purpose	0.6 ± 0.1	922 ± 2
Available LL235F7	Lamination	0.70 ± 0.1	922 ± 2
16501	Liner	0.95 ± 0.1	918 ± 2
Available 22502AA / 22502KJ	General Purpose	1.80 ± 0.2	923 ± 1
Available 22501AA / 22501KJ	High Stiffness	0.95 ± 0.1	923 ± 1
16502	Cast & general Purpose	2.00 ± 0.2	918 ± 2
16503	Cast	3.00 ± 0.3	916 ± 2
2- Terpolymer - HP-LLDPE SPECIALITY PRODUCTS			
12XF6	High Performance	0.60 ± 0.10	914 ± 2
12HF6	Shrink	0.60 ± 0.10	914 ± 2
14ZF8	Easy Processability	0.75 ± 0.10	915 ± 2
14XF9	Lamination	0.90 ± 0.10	915 ± 2
12X01	Superbutene	0.95 ± 0.10	914 ± 2
14X01	High Stiffness	0.95 ± 0.10	915 ± 1
11X02	General Purpose	2.00 ± 0.20	912 ± 1
09X02	Stretch cast	2.20 ± 0.20	910 ± 1
20X02	Bread bags	2.50 ± 0.20	921 ± 1
Available 18XF5 N ★	High performance	0.50 ± 0.3	921 ± 2
3- Quattropolymer" HP-LLDPE SPECIALTTY PRODUCTS (HP HEXENE TYPE)			
18XF3	Shrink film, high perform.	0.30 ± 0.05	918 - 921
18YF5	High Stiffness/ Shrink	0.55 ± 0.10	918 - 921
12YF6	Liner	0.60 ± 0.10	914 ± 2
15YF6	Heavy duty	0.60 ± 0.10	916 ± 1



Products Specification of
LLDPE Plant

Grades	Application	Processing Method	
11YF6	Lamination high clarity	0.60 ± 0.10	911 - 914
14Y01	Thin film	1.00 ± 0.10	915 ± 1
10Y02	High Pre-Stretch cast	2.20 ± 0.20	911 ± 1
4- VLDPE (butene) film grades SPECLALITY GRADES			
10501	Lamination	2.50 ± 0.30	911 ± 1
10502	Cast- Co-extrusion(*)	2.50 ± 0.30	911 ± 1
5- HP-VLDPE SPECIALITY PRODUCTS			
01X01	Co-extrusion	0.92 ± 0.1	902 ± 1
02X02	Geomembranes, Bumpers, Soft Nets	1.80 ± 0.20	903 ± 1
6- HDPE - Medium MWD - Stretched			
Available Jamlene HD-5000s ★	Monofilament	0.80 ± 0.10	953 ± 2
424F5	Raffia (Textile grade)	0.50 ± 0.10	942 ± 1
534F7	Monofilament, high tenacity	0.70 ± 0.10	953 ± 1
50401	Monofilament	1.00 ± 0.10	950 ± 2
7- HP-HDPE (@) SPECIALITY PRODUCTS			
36XF6	Raffia for ropes	0.60 ± 0.10	936 ± 1
43X01	Monofilament	1.00 ± 0.10	943 ± 1
41X01	Cast flat yarn (Raffia)	1.20 ± 0.10	941 ± 1
8- HDPE Narrow MWD - Homopolymer injection moulding grades			
Available 60505 / 60505UV	Crates	5.50 ± 1.00	958 ± 2
Available 60507 / 60507UV	Crates	7.50 ± 1.00	958 ± 2
Available 60511 / 60511UV	Houseware	11.00 ± 2.00	958 ± 2
60518	Fast cycle	18.00 ± 2.00	958 ± 2

(*) Grade under final development, to be Industrialised.
(1) Melt Flow rate (190° C/5kg).

Grades	Application	Processing Method	
60535	Thin walled	35.00 ± 5.00	958 ± 2
9- HDPE Narrow MWD - Copolymer injection moulding grades			
Available CC 52501 ★	Caps and closures (CSD)	0.90 ± 0.10	952 ± 2
Available CC 52502 ★	Caps and closures (Mineral water, CSD)	2.10 ± 0.20	952 ± 2
Available CC 52502SU ★	Caps and closures (CSD)	2.10 ± 0.20	952 ± 2
Available 52505 / 52505UV	Containers	5.00 ± 1.00	952 ± 2
Available 52511 / 52611UV	Houseware	11.00 ± 2.00	952 ± 2
Available 52518	Houseware, High fluidity	18.00 ± 2.00	952 ± 2
52528	Caps, Thin walled	28.00 ± 4.00	952 ± 2
10- LLDPE (butene) Injection moulding grades			
20505	General purpose	5.00 ± 1.00	922 ± 1
20516	General purpose	16.00 ± 2.00	922 ± 1
25525	Lids	25.00 ± 3.00	925 ± 1
26560	Fast Cycle	60.00 ± 5.00	926 ± 1
11- LLDPE (butene) Extrusion Coating			
23507	Extrusion coating	7.00 ± 1.00	923 ± 1
12- LLDPE Rotomoulding			
Available 32604UV	Rotomoulding, high-ESCR	4.00 ± 1.00	932 ± 1
30505 UV	Rotomoulding, high-ESCR	5.00 ± 1.00	930 ± 1
Available 38504UV ★	Rotomoulding, high-ESCR	4.00 ± 1.00	938 ± 2
32505 UV	Rotomoulding, high-ESCR	5.00 ± 1.00	932 ± 2
Available MD35504 ★	Rotomoulding, high-ESCR	4.00 ± 1.00	935 ± 1
13- HP LLDPE SPECIALTY PRODUCTS			
30Y04	Rotomoulding & Stiff Cast	4.00 ± 1.00	930 ± 1
14- BWMD HDPE for Blow Moulding			
526F1BX(*)	Blow moulding containers, high impact	0.12	952

Grades	Application	Processing Method	
526F2BX	Blow moulding small containers, high ESCR	0.25	952
524F2(*)	Blow moulding small containers	0.25	952
★ 15- BWMD HDPE for Pipes [MELT FLOW RATE (190° C/5KG)]			
486H2(*)	Pipes	0.2 ⁽¹⁾	948
★ 16- BWMD HDPE for Blown Film [MELT FLOW RATE (190° C/5KG)]			
526H1(*)	Blow film, high Stiffness	0.15 ⁽¹⁾	952
486H2(*)	Blow film, high mechanicals	0.25 ⁽¹⁾	948
524H1FX(*)	Blow film, high Stiffness	0.15 ⁽¹⁾	952
484H2(*)	Blow film, general purposes	0.25 ⁽¹⁾	948
17- Miscellaneous			
Available MD3510 ★	Tapes and Films	0.4 ± 0.1	935 ± 1
Available MD3520 ★	Tapes and Films	0.6 ± 0.1	935 ± 1

★ Innovations in the products of JAM Petrochemical Company are shown with the symbol.



LL235F6



LL-235F6 is a linear-low density polyethylene resin (LLDPE), obtained by gas phase technology process. This grade designed for the production of different type 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 Process ability
- Excellent melt strength

Density: 0.922 - 0.924

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 (190°C/ 2.16Kg)	g/10 min	0.6	D1238
Density	g/cm ³	0.923	D1505
Mechanical Properties @			
Tensile Strength at Yield	MPa	11.5/12 (MD/TD)	D882
Tensile Strength at Break	MPa	47/28 (MD/TD)	D882
Tensile Elongation at Break	%	>600	D882
Elmendorf Tear	gr	130/470 (MD/TD)	D1922

@ Film properties are measured on 25 µm blown film produced at 2.5 BUR.

APPLICATIONS





LL235F7

LL-235F7 is a linear low-density polyethylene resin (LLDPE) obtained by gas phase technology process. This grade is suitable for the production of lamination, agricultural, shrink and general films. LL-235F7 combined good processability and melt strength with excellent mechanical properties, high sealability, good hot tack force and superior optical properties. This grade approved for food contact applications.

LLDPE: LL-235F7

Characteristic Properties

- High sealability, superior optical properties

Density: 0.922 - 0.925

Main Applications

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

MFI: 0.6 - 0.8

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	0.7	D1238
Density	g/cm ³	0.922	D1505
Mechanical Properties @			
Tensile Strength at Yield	MPa	11/12 (MD/TD)	D882
Tensile Strength at Break	MPa	40/25 (MD/TD)	D882
Tensile Elongation at Break	%	>700	D882
Elmendorf Tear	gr	78/455 (MD/TD)	D1922

@ Film properties are measured on 25 µm blown film produced at 2.5 BUR.

APPLICATIONS



LL22502AA LL22502KJ



22502 is a LLDPE blown film grade designed for applications requiring ease of processing and good optical properties even at low extrusion temperature. This resin is well suited for blending with LDPE and for general purpose uses, including agricultural applications.

LLDPE: LL22501AA | LL22501KJ

Characteristic Properties

- Ease of processing; Good optical properties; Low extrusion temperature
- Suited for blending with LDPE

Density: 0.922 - 0.924

Main Applications

- Blown film grade; General purpose
- Agricultural applications.

MFI: 1.6 - 2

Additives

- 22502AA: Thermal Antioxidant (Process Stabilizer), Catalyst neutralizer (acid scavenger, lubricant)
- 22502KJ: Thermal Antioxidant (Process Stabilizer), Antiblocking Agent; Slip Agent, 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		ASTM Method
Melt Index (190°C/ 2.16Kg)	g/10 min	1.8		D1238
Density	g/ml	0.922		D1505
Film properties @				
Dart Impact	g		67	D1709
Elmendorf Tear	g	MD/TD	127/332	D1922
Tensile Strength at yield	MPa	MD/TD	12/12	D882
Tensile Strength at break	MPa	MD/TD	37/32	D882
Ultimate elongation	%	MD/TD	783/888	D882
Haze	%		34	D1003
Gloss 45°			24	D2457
@ 25 micron film obtained on Collin 25, B.u.R. 2.5: 1, Temp. profile 155 → 190°C.				
Recommended processing conditions				
Melt Temperature	°C	190-230		
Blow up ratio		2.0-3.0		
Die Gap	mm	2.0-2.5		
Thickness	micron	15-150		

APPLICATIONS





LL22501AA LL22501KJ

22501 is a LLDPE blown film grade designed for applications requiring good optical properties even at low extrusion temperature. This resin combines ease of processing with low gels and it is well suited for blending with LDPE and for general purpose applications.

LLDPE: LL22501AA | LL22501KJ

Characteristic Properties

- High stiffness, good optical properties
- Low extrusion temperature
- Ease of processing, low gels
- Suited for blending with LDPE

Density: 0.922 - 0.924

Main Applications

- Blown film grade
- General Purpose applications

MFI: 0.85 - 1.05

Additives

- 22501AA
 - Thermal Antioxidant (Process Stabilizer)
 - Catalyst neutralizer (acid scavenger, lubricant)

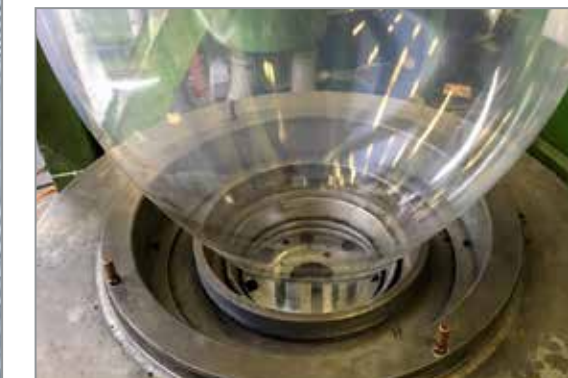
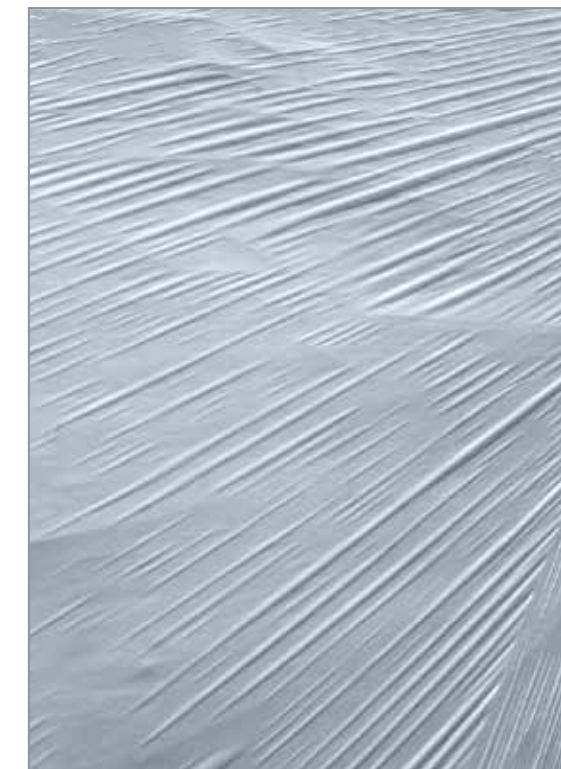
22501KJ

- Thermal Antioxidant (Process Stabilizer), Antiblocking Agent, Slip Agent
- 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		ASTM Method
Melt Index (190°C/ 2.16Kg)	g/10 min	0.95		D1238
Density	g/ml	0.923		D1505
Film properties @				
Dart Impact	g		70	D1709
Elmendorf Tear	g	MD/TD	105/436	D1922
Tensile Strength at yield	MPa	MD/TD	11/12	D882
Tensile Strength at break	MPa	MD/TD	41/31	D882
Ultimate elongation	%	MD/TD	648/780	D882
Haze	%		34	D1003
Gloss 45°			24	D2457
@ 25 micron film obtained on Collin 25, B.u.R. 2.5: 1, Temp. profile 155 → 190°C.				
Recommended processing conditions				
Melt Temperature	°C	190-230		
Blow up ratio		2.0-3.0		
Die Gap	mm	2.0-2.5		
Thickness	micron	15-150		

APPLICATIONS





HPLL18XF5N



HP-LL18XF5 N is a terpolymer of ethylene, propylene and butene-1 for high Strength application especially heavy duty shipping sacks, ice bag, frozen food bags, potato bags and agriculture films which have good sealability and excellent puncture resistance. Goods produced from this grade have outstanding toughness, excellent puncture resistance, good heat sealing behavior and excellent machinability on conversion lines. HPLLDPE's process is easier than conventional LLDPEs and have low gel. HPLL18XF5 N is a grade without slip additives.

HP-LLDPE: LL18XF5N

Characteristic Properties

- Excellent puncture resistance.
- Excellent machinability on conversion lines.

Density: 0.918 - 0.922

Main Applications

- T-bags and other bags
- Food Packaging for frozen products, Agricultural
- Film, Heat seal film, Food Packaging

MFI: 0.4 - 0.6

Additives

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

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		0.5	D1238
Density	g/cm ³		0.918	D1505
Film properties @				
Dart Impact	g		70	D1709
Vicat Softening Point	°C		127	D1525
Tensile Strength at yield	MPa	(MD/TD)	11/10	D638
Tensile Strength at break	MPa	(MD/TD)	40/35	D638
Ultimate elongation	%	(MD/TD)	600/750	D638
Elmendorf Tear	g	(MD/TD)	240/400	D1922
Haze	%		30	D1003
Gloss 45°			25	D2457

@ 25 micron film obtained on Collin 25, B.u.R. 2.5: 1, Temp. profile 155 → 190 °C: melt 200 °C

APPLICATIONS





HD5000S



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.

Jamlene: 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 sack.

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 (190°C/ 2.16Kg)	g/10 min	0.8	D1238
Density	g/cm ³	0.953	D1505
Thermal Properties		Unit	Value
Vicat Softening Point	°C	125	D1525
Molded Properties		Unit	Value
Flectural Modulus	MPa	1100	D790
Tensile Strength at Yield	MPa	24	D790
Tensile Strength at Break	Mpa	39	D638
H.D.T	°C	75	D648
Notched Izod Impact @ 23 °C	J/m	400	D256/A

APPLICATIONS



HD60505 HD60505UV



60505 is a HDPE injection molding grade which combines high stiffness with good physical properties. This resin is well suited for crates and toys applications.

HDPE: HD60505 | HD60505UV

Characteristic Properties

- High stiffness with good physical properties.

Density: 0.956 - 0.960

Main Applications

- Injection molding grade
- Crates
- Toys applications

MFI: 4.5 - 6.5

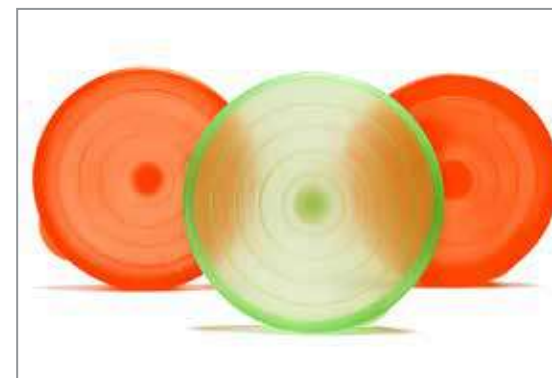
Additives

- 60505
 - Thermal Antioxidant (Process Stabilizer)
 - Catalyst neutralizer (acid scavenger, lubricant)
- 60505UV
 - Catalyst neutralizer (acid scavenger, lubricant)
 - UV Stabilizer
 - Thermal Antioxidant (Process Stabilizer)

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

Resin Properties	Unit	Typical Value	ASTM Method
Melt Index (190°C/ 2.16Kg)	g/10 min	5.5	D1238
Density	g/ml	0.958	D1505
Physical properties @			
Flexural modulus	MPa	1460	D790
Notched Izod impact at 23°C	J/m	30	D256/A
Vicat softening point	°C	125	D1525
Fabrication conditions for injection moulding			
Recommended barrel temperatures range between 190 and 280°C			

APPLICATIONS





HD60507 HD60507UV

60507 is a HDPE homopolymer which is manufactured in gas phase process for 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: 0.956 - 0.960

Main Applications

- Crates
- 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/ml	0.958	D1505
Resin Properties @	Unit	Typical Value	Test Method
Vicat Softening Point	°C	126.5	D1525
Moulded Properties @	Unit	Typical Value	Test Method
Flexural Modulus	MPa	1450	D790
Notched Izod Impact @ 23 °C	J/m	24	D256/A

APPLICATIONS





HD60511 HD60511UV

60511 is a HDPE injection molding grade which combines excellent flowability with high stiffness. This resin is well suited for housewares and toys applications.

HDPE: HD60511 | HD60511UV

Characteristic Properties

- Excellent flowability with high stiffness.

Density: 0.956 - 0.960

Main Applications

- Injection molding grade
- Houseware toys

MFI: 9 - 13

Additives

60511

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

60511UV

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

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

Resin Properties	Unit	Typical Value	ASTM Method
Melt Index (190°C/ 2.16Kg)	g/10 min	11	D1238
Density	g/ml	0.958	D1505
Physical properties @			
Flexural modulus	MPa	1450	D709
Notched Izod impact at 23°C	J/m	21	D256/A
Vicat softening point	°C	125	D1525
Fabrication conditions for injection moulding			
Recommended barrel temperatures range between 190 and 280°C			

APPLICATIONS





CC52501



CC52501 is a Narrow MWD HDPE specially designed for beverage bottles of sparkling water, hotfilled and carbonated soft drinks. This grade has excellent organoleptic properties which prevent unpleasant odor and taste from cap or closure to transfer to water. It has good gas permeability characteristics, superior processability and excellent mechanical strength. HDPE CC52501 does not contain slip agent.

HDPE: CC52501

Characteristic Properties

- Narrow MWD HDPE, excellent environmental stress crack resistance and organoleptic property
- Good gas permeability characteristics

Density: 0.950 - 0.954

Main Applications

- Caps and closures for beverage bottles of sparkling water
- Hotfilled and carbonated soft drinks.

MFI: 0.9 - 1.1

Additives

- Antioxidants/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
Melt Index (190°C/ 2.16Kg)	g/10 min	1.0	D1238
Density	g/cm ³	0.952	D1505
Thermal Properties			
	Unit	Value	Test Method
Vicat Softening Point	°C	123	D1525
Molded Properties			
	Unit	Value	Test Method
Flectural Modulus	Mpa	800	D790
Tensile Strength at Yield	Mpa	25	D790
Tensile Strength at Break	Mpa	36	D638
H.D.T	°C	78	D648
Notched Izod Impact @ 23 °C	J/m	80	D256/A

APPLICATIONS





CC52502

CC52502 is a Narrow MWD HDPE specially designed for mineral water bottles and beverage caps. This grade has excellent organoleptic properties which prevent unpleasant odor and taste from cap or closure to transfer to water. It has good gas permeability characteristics, superior processability and excellent mechanical strength. HDPE CC52502 does not contain slip agent.

HDPE: CC52502

Characteristic Properties

- Narrow MWD HDPE
- Excellent organoleptic property
- Superior processability and excellent mechanical strength
- Good gas permeability characteristics

Density: 0.950 - 0.954

Main Applications

- Caps and closures for mineral water bottles,
- Caps for sparkling water and carbonated
- Soft drinks, beverage caps.

MFI: 1.9 - 2.1

Additives

- Antioxidants/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
Melt Index (190°C/ 2.16Kg)	g/10 min	2.1	D1238
Density	g/cm ³	0.952	D1505
Thermal Properties			
	Unit	Value	Test Method
Vicat Softening Point	°C	124	D1525
Molded Properties			
	Unit	Value	Test Method
Flectural Modulus	Mpa	1000	D790
Tensile Strength at Yield	Mpa	25	D790
Tensile Strength at Break	Mpa	38	D638
H.D.T	°C	78	D648
Notched Izod Impact @ 23 °C	J/m	180	D256/A

APPLICATIONS





CC52502SU

CC52502 is a Narrow MWD HDPE specially designed for mineral water bottles and beverage caps. This grade has excellent organoleptic properties which prevent unpleasant odor and taste from cap or closure to transfer to water. It has good gas permeability characteristics, superior processability and excellent mechanical strength. HDPE CC52502SU does contain slip agent and stabilized against UV light.

HDPE: CC52502SU

Characteristic Properties

- Narrow MWD HDPE
- Excellent organoleptic property
- Superior processability and excellent mechanical strength
- Good gas permeability characteristics

Density: 0.950 - 0.954

Main Applications

- Caps and closures for mineral water
- Bottles, Caps for sparkling water and carbonated
- Soft drinks, beverage caps.

MFI: 1.9 - 2.3

Additives

- Antioxidants/Acid scavenger
- AntiBlock

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	2.1	D1238
Density	g/cm ³	0.952	D1505
Thermal Properties			
	Unit	Value	Test Method
Vicat Softening Point	°C	124	D1525
Molded Properties			
	Unit	Value	Test Method
Flectural Modulus	Mpa	1000	D790
Tensile Strength at Yield	Mpa	25	D790
Tensile Strength at Break	Mpa	38	D638
H.D.T	°C	78	D648
Notched Izod Impact @ 23 °C	J/m	180	D256/A

APPLICATIONS





HD52505 HD52505UV

52505 is a HDPE copolymer which is manufactured in 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.

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 ³	0.952	D1505
Thermal Properties			
	Unit	Typical Value	Test Method
Vicat Softening Point	°C	124	D1525
Molded Properties			
	Unit	Typical Value	Test Method
Flectural Modulus	Mpa	1200	D790
Tensile Strength at Yield	Mpa	27	D638
Tensile Strength at Break	Mpa	13	D638
H.D.T	°C	67	D648
Notched Izod Impact @ 23 °C	J/m	29	D256/A

APPLICATIONS





HD52511 HD52511UV

52511 is a HDPE copolymer injection molding grade for applications requiring a good balance between physical properties and flowability, like housewares and toys.

HDPE: HD52511 | HD52511UV

Characteristic Properties

- Good balance between physical properties and flowability,

Density: 0.950-0.954

Main Applications

- Injection molding grade
- Houseware

MFI: 9 - 13

Additives

- 52511:
- Thermal Antioxidant (Process Stabilizer)
 - Catalyst neutralizer (acid scavenger, lubricant)

52511 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	ASTM Method
Melt Index (190°C/ 2.16Kg)	g/10 min	11	D1238
Density	g/ml	0.952	D1505
Physical properties @			
Flexural modulus	MPa	1200	D709
Notched Izod impact at 23°C	J/m	22	D256/A
Vicat softening point	°C	122	D1525
Fabrication conditions for injection moulding			
Recommended barrel temperatures range between 190 and 280°C			

APPLICATIONS





HD52518

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

HDPE: HD52518
Characteristic Properties

- Good balance between easy of processability and flowability

Density: 0.950-0.954
Main Applications

- Housewares
- High fluidity
- 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	ASTM Method
Melt Index (190°C/ 2.16Kg)	g/10 min	18	D1238
Density	g/ml	0.952	D1505
Thermal Properties @	Unit	Typical Value	Test Method
Vicat Softening Point	°C	121	D1525
Moulded Properties @	Unit	Typical Value	Test Method
Flexural Modulus	MPa	1200	D790
Notched Izod Impact @ 23 °C	J/m	19	D256/A

APPLICATIONS



LL32604 LL32604UV



32604 is a LLDPE for rotomolding which manufactured by gas phase process. This grade is suitable for all applications which need a good balance among moldability and mechanical properties together with an exceptional stress cracking resistance.

LLDPE: LL32604 | LL32604 UV

Characteristic Properties

- Excellent ESCR.

Density: 0.931 - 0.933

Main Applications

- High ESCR rotomolded items
- Chemical containers

MFI: 3 - 5

Additives

- LL-32604:
- Thermal Antioxidant
- LL-32604UV:
- Thermal Antioxidant
- UV 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	4	D1238
Density	g/cm ³	0.932	D1505
Physical Properties			
	Unit	Typical Value	Test Method
Flectural Modulus	Mpa	1350	D790
Notched Izod Impact @ 23 °C	J/m	NB	D256/A
E.S.C.R	h	>1000	D1693

APPLICATIONS





MD38504UV



MD-38504 is a UV stabilized linear medium density polyethylene grade with a narrow molecular weight distribution. It is suitable for rotational molding and some injection molding application such as technical parts and closures. Characteristics include: good impact strength, excellent external and internal surface finish, and is UV stabilized.

MDPE: MD38504UV Characteristic Properties

- Good impact strength
- High ESCR

Density: 0.936 - 0.940 Main Applications

- Rotomolding

MFI: 3 - 5 Additives

- 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	ASTM Method
Melt Index (190°C/ 2.16Kg)	g/10 min	4	D1238
Density	g/ml	0.938	D1505
Physical properties @			
Flexural Modulus	MPa	650	D790
Tensile Strength at yield	MPa	15	D638
Tensile Strength at break	%	800	D638
Charpy Unnotched impact Strength	KJ/m ²	25	D256
Vicat Softening Temperature	°C	115	D1525
Durometer Hardness	Shore D	60	D2240

APPLICATIONS





MD35504



MD-35504 is a UV stabilized linear medium density polyethylene grade with a narrow molecular weight distribution. It is suitable for rotational molding and some injection molding applications such as technical parts and closures. Characteristics include: good impact strength, excellent external internal surface finish, and is UV stabilized.

MDPE: MD-35504

Characteristic Properties

- Good impact strength, High ESCR

Density: 0.934 - 0.936

Main Applications

- Tanks
- Containers
- Injection molded parts

MFI: 3-5

Additives

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

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	4	D1238
Density	g/cm ³	0.935	D1505
Thermal properties @			
Vicat Softening Point	°C	112	D1525
Mechanical Properties @			
Flexural modulus	MPa	640	D790
Tensile Strength at Yield	MPa	17.5	D638
Tensile Strength at Break	MPa	12	D638
Hardness	Shore D	60	D2240
Notched Izod Impact @ 23 °C	J/m	100	D256/A
Oncompression molded according to ASTM D1928C			

APPLICATIONS





MD3510



MD-3510 is a medium density polyethylene resin (MDPE), 1-butene copolymer, obtained by gas phase technology process. This grade designed for the production of drip irrigation tapes, pipes and mono or coex film applications. In this grade excellent extrusion properties combined with good mechanical properties. MD-3510 can be blended with different PE grades to modify the final properties of the products.

MDPE: MD-3520

Characteristic Properties

- Excellent extrusion properties
- Good mechanical properties

Density: 0.933 - 0.936

Main Applications

- tapes and pipes
- Heavy duty film applications
- FSS packaging films

MFI: 0.3 - 0.5

Additives

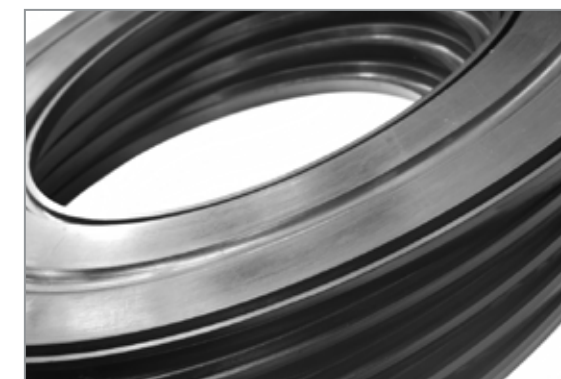
- Thermal Antioxidant (Process Stabilizer)
- Catalyst neutralizer (acid scavenger, lubricant)
- Anti UV
- PPA

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	0.4	D1238
Density	g/cm ³	0.935	D1505
Thermal properties @			
Vicat Softening Point	°C	120	D1525
Melting Point	°C	130	D3418
Mechanical Properties @			
Flexural modulus	MPa	640	D790
Tensile Strength at Yield	MPa	18	D638
Tensile Strength at Break	MPa	27	D638
Tensile Elongation at Break	%	>800	D638
Notched Izod Impact @ 23 °C	J/m	700	D256/A
Hardness	Shore D	61	D2240
ESCR	hr	>1000	1693

Oncompression molded according to ASTM D1928C

APPLICATIONS





MD3520

MD-3520 is a medium density polyethylene resin (MDPE), 1-butene copolymer, obtained by gas phase technology process. This grade designed for the production of drip irrigation tapes, pipes and mono or coex film applications. In this grade excellent processability combined with good mechanical properties. MD-3520 can be blended with different PE grades to modify the final properties of the products.

MDPE: MD-3520

Characteristic Properties

- Excellent extrusion properties
- Good mechanical properties

Density: 0.934 - 0.936

Main Applications

- tapes and pipes
- Heavy duty shapping bag
- Heavy duty film applications
- FSS automatic packaging films

MFI: 0.5 - 0.7

Additives

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

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	0.6	D1238
Density	g/cm3	0.935	D1505
Thermal properties @			
Vicat Softening Point	°C	118	D1525
Melting Point	°C	129	D3418
Mechanical Properties @			
Flexural modulus	MPa	640	D790
Tensile Strength at Yield	MPa	18	D638
Tensile Strength at Break	MPa	25	D638
Tensile Elongation at Break	%	>800	D638
Notched Izod Impact @ 23 °C	J/m	600	D256/A
Hardness	Shore D	61	D2240
ESCR	hr	>1000	1693

Oncompression molded according to ASTM D1928C

APPLICATIONS



POLYPROPYLENE PLANT

Producing Plants and Products





HP525J

“Jampilen HP525J” is a medium flow homopolymer with bimodal molecular weight distribution and good clarity intended for BOPP films. The product is suitable for metallizable film, both as monolayer and in coextruded structures. It contains a standard processing stabilisation but does not contain any slip, antiblocking agents and is calcium stearate free. “Jampilen HP525J” offers good optical properties, easy processing and very stable film profile. Typical applications are BOPP packaging films and Solid Phase Thermoforming sheets. “Jampilen HP525J” is suitable for food contact

Jampilen HP550J

Characteristic Properties

- Good optical properties
- Easy processing and very stable film profile

Density: 0.9

Main Applications

- High quality packaging film for food
- Lamination to other films
- Metalizable film
- Medical packaging
- Thermoformed food containers
- BOPP Film

MFI: 3

Additives

- Antioxidant package

Typical Properties	Value	Unit	Method
Physical			
Melt Flow Rate (230 °C, 2.16 kg)	3.0	g/10min	ASTM D1238
Density	0.9	g/cm ³	ASTM D1505
Mechanical			
Flexural Modulus	1400	MPa	ASTM D790
Tensile Strength at Yield	32	MPa	ASTM D638
Tensile Elongation at Yield	9	%	ASTM D638
Izod Impact Strength(notched)at 23 °C	55	J/m	ASTM D256
Thermal			
Vicat softening point (10N)	152	°C	ASTM D1525
H.D.T. (0.45 MPa)	84	°C	ASTM D648
Accelerated oven ageing in air at 150 °C	500	hours	ASTM D3012
Optical			
Haze (20µm)	0.5	%	ASTM D1003

APPLICATIONS





HP550J

"Jampilen HP550J" is a polypropylene homopolymer particularly suitable for the extrusion of sheet for thermoforming, film yarn and monofilament. This grade combines suitable processability with good mechanical properties. "Jampilen HP550J" is designed for the production of films that can be converted into stretched tapes for weaving applications. Textile film yarns with a denier count of not more than 1100 to 1200 are used for the production of carpet backings, bags, industrial fabrics, mats and artificial grass. Film yarn with a denier count ranging from 3000 to 28000 is used for baler twines, packaging twines and ropes. "Jampilen HP550J" is suitable for food contact.

Density: 0.9

Main Applications

- Stiff sheet for high quality thermoformings such as vending cups, packaging for dairy products and trays for fruit, biscuits and chocolates
- Film yarn, raffia, tapes, strapping
- Carpet backings, bags, industrial fabrics, mats
- Artificial grass
- Baler twines, packaging twines and ropes
- Brush and broom filling and technical applications
- Nets for various purposes

MFI: 3.2

Additives

- Antioxidant package

Jampilen HP550J

Characteristic Properties

- Good processability, good mechanical properties

Typical Properties	Value	Unit	Method
Physical			
Melt Flow Rate (230 °C, 2.1 6kg)	3.2	g/10min	ASTM D1238
Density	0.9	g/cm ³	ASTM D1505
Mechanical			
Flexural Modulus	1400	MPa	ASTM D790
Tensile Strength at Yield	32	MPa	ASTM D638
Tensile Elongation at Yield	9	%	ASTM D638
Izod Impact Strength (notched) at 23 °C	50	J/m	ASTM D256
Thermal			
Vicat softening point (10N)	152	°C	ASTM D1525
H.D.T. (0.45 MPa)	84	°C	ASTM D648
Accelerated oven ageing in air at 150 °C	360	hours	ASTM D3012

APPLICATIONS





HP510L

“Jampilen HP510L” is a polypropylene homopolymer with good flow properties and is particularly suitable for the extrusion of film yarn, monofilament, cast film and sheet.

Density: 0.9

Main Applications

- Fiber extrusion (Sheet, film yarn, monofilament), Cast film
- Baler twines, packaging twines and ropes;
- Brush and broom filling and technical applications
- Coextruded film for packaging; Thin sheet for stationery folders
- Sheet for thermoforming; Gunny sacks
- Carpet backings, bags, industrial fabrics, mats; Artificial grass
- Baler twines, packaging twines and ropes
- Brush and broom filling and technical applications
- Nets for various purposes

MFI: 6

Additives

- Antioxidant package

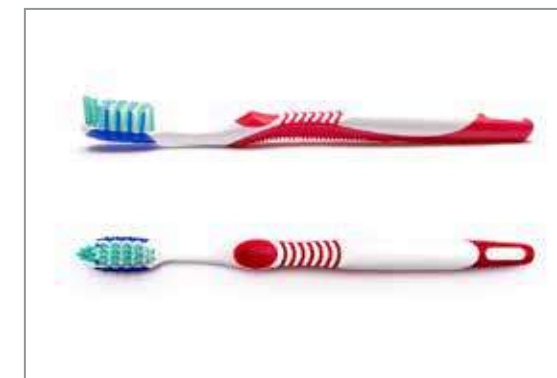
Jampilen HP510L

Characteristic Properties

- Outstanding processability, Good
- mechanical properties

Typical Properties	Value	Unit	Method
Physical			
Melt Flow Rate (230 °C, 2.16 kg)	6.0	g/10min	ASTM D1238
Density	0.9	g/cm ³	ASTM D1505
Mechanical			
Flexural Modulus	1400	MPa	ASTM D790
Tensile Strength at Yield	32	MPa	ASTM D638
Tensile Elongation at Yield	8	%	ASTM D638
Izod Impact Strength (notched) at 23 °C	40	J/m	ASTM D256
Thermal			
Vicat softening point (10N)	152	°C	ASTM D1525
H.D.T. (0.45 MPa)	84	°C	ASTM D648
Accelerated oven ageing in air at 150 °C	360	hours	ASTM D3012

APPLICATIONS



HP552R



"Jampilen HP552R" is a high melt flow homopolymer for the production of CF, BCF and fine denier staple fibers at medium to high spinning speeds and exhibits excellent antigasfading properties." Jampilen HP552R" is suitable for nonwoven fabrics for diapers, medical-sanitary applications and wipes. Another typical application is high tenacity continuous filament for straps for backpacks, sport bags, bulk bags and safety belts. Continuous filament with medium tenacity is used for upholstery and sportswear. "Jampilen HP552R" is also suited for the production of bulked continuous filament for carpets. "Jampilen HP552R" is suitable for food contact.

Jampilen HP552R

Characteristic Properties

- High melt flow
- Excellent antigasfading properties
- Good processability

Density: 0.9

Main Applications

- Wipes and tissues
- Straps for backpacks, sport bags, bulk bags and for safety belts
- Upholstery and sportswear
- Bulk continuous filament for carpets
- Nonwoven staple fiber
- Injection molded articles, housewares, etc

MFI: 25

Additives

- Antioxidant package

Typical Properties	Value	Unit	Method
Physical			
Melt Flow Rate (230 °C, 2.16 kg)	25	g/10min	ASTM D1238
Density	0.9	g/cm ³	ASTM D1505
Mechanical			
Flexural Modulus	1400	MPa	ASTM D790
Tensile Strength at Yield	32	MPa	ASTM D638
Tensile Elongation at Yield	9	%	ASTM D638
Izod Impact Strength(notched)at 23 °C	50	J/m	ASTM D256
Thermal			
Vicat softening point (10N)	152	°C	ASTM D1525
H.D.T. (0.45 MPa)	84	°C	ASTM D648
Accelerated oven ageing in air at 150 °C	150	hours	ASTM D3012

APPLICATIONS



HP564S



“Jampilen HP564S” is a high melt flow rate homopolymer with a narrow molecular weight distribution for the high speed production of low denier continuous filament for spunbonded, nonwoven fabrics with an excellent balance of mechanical properties and softness. This grade is formulated with an antigasfading stabilization package and characterized by consistent high speed and low nonwoven weights. The major applications for spunbonded fabrics made of “Jampilen HP564S” are diapers, medical and sanitary tissues, protective fabrics for agricultural, industrial and medical applications, backings and linings for the furniture and carpet industries. This grade can also be used for the production of partially oriented yarn and bulked continuous filament. “Jampilen HP564S” is suitable for food contact.

Jampilen HP564S

Characteristic Properties

- High melt flow
- Narrow molecular weight distribution
- Easy processability
- Gasfading resistant

Density: 0.9

Main Applications

- Spunbonded, nonwoven fabrics
- Fabrics for diapers, feminine care, medical and sanitary tissues
- Protective fabrics for agricultural, industrial and medical applications
- Backings and linings for the furniture and carpet industries
- Oriented yarn and bulked continuous filament
- Wipe and Tissues

MFI: 42

Additives

- Antioxidant package,
- Antistatic agent

Typical Properties	Value	Unit	Method
Physical			
Melt Flow Rate (230 °C, 2.16 kg)	42	g/10min	ASTM D1238
Density	0.9	g/cm ³	ASTM D1505
Mechanical			
Flexural Modulus	1400	MPa	ASTM D790
Tensile Strength at Yield	32	MPa	ASTM D638
Tensile Elongation at Yield	8	%	ASTM D638
Izod Impact Strength (notched) at 23 °C	30	J/m	ASTM D256
Thermal			
Vicat softening point (10N)	152	°C	ASTM D1525
H.D.T. (0.45 MPa)	84	°C	ASTM D648
Accelerated oven ageing in air at 150 °C	150	hours	ASTM D3012

APPLICATIONS





RP345S

“Jampilen RP345S” is a polypropylene random copolymer with high fluidity and outstanding transparency and optical properties. “Jampilen RP345S” is the material of choice for applications where transparency and aesthetics are primary requirements. This grade is designed for injection molding and injection stretch blow molding (ISBM) applications. Thanks to its high fluidity, one can experience reduced cycle times and energy savings compared to conventional grades. “Jampilen RP345S” is suitable for the packaging of non-oxygen sensitive products; hence, it counts as an effective alternative for PVC and PET in ISBM.

Jampilen RP345S

Characteristic Properties

- High fluidity
- Excellent Optical properties
- Unspecified antistatic properties
- Suitable organoleptic properties
- Excellent processability and reduced cycle times

Density: 0.934 - 0.936

Main Applications

- Household containers, housewares Packaging for food, cosmetics and pharmaceutical products
- TWIM, Lids, caps and closures
- Medical sector such as syringes, test tubes and vials
- Sports, leisure and toys, CD and DVD boxes
- Bottles and containers produced with ISBM

MFI: 40

Additives

- Antistatic agent,
- Antioxidant package, Clarifier

Typical Properties	Value	Unit	Method
Physical			
Melt Flow Rate (230 °C, 2.16 kg)	40	g/10min	ASTM D1238
Density	0.9	g/cm ³	ASTM D1505
Mechanical			
Flexural Modulus	1100	MPa	ASTM D790
Tensile Strength at Yield	28	MPa	ASTM D638
Tensile Elongation at Yield	9	%	ASTM D638
Izod Impact Strength (notched) at 23 °C	55	J/m	ASTM D256
Thermal			
Vicat softening point (10N)	128	°C	ASTM D1525
H.D.T. (0.45 MPa)	82	°C	ASTM D648
Accelerated oven ageing in air at 150 °C	360	hours	ASTM D3012
Optical			
Haze (1 mm)	11	%	ASTM D1003
Gloss	90	---	ASTM D2457

APPLICATIONS



EP440L



“Jampilen EP440L” is a medium flow heterophasic polypropylene copolymer with improved balance of mechanical properties. The product features high stiffness and outstanding impact strength at low temperatures and is specifically designed for injection molding applications. In comparison with conventional copolymers with the same MFR and same rigidity, “Jampilen EP440L”, exhibits 35 % higher toughness. “Jampilen EP440L” is suitable for a wide range of applications in the packaging, automotive and consumer goods industries. Typical applications include luggage, paint pails, buckets, containers, crates, batteries and large toys.

Jampilen EP440L
Characteristic Properties

- High impact strength
- High stiffness

Density: 0.9

Main Applications

- Packaging, automotive and consumer goods industries
- Luggage, paint pails, buckets
- Containers, crates, batteries and large toys

MFI: 6

Additives

- Antioxidant package,
- Nucleating agent

Typical Properties	Value	Unit	Method
Physical			
Melt Flow Rate (230 °C, 2.16 kg)	6.0	g/10min	ASTM D1238
Density	0.9	g/cm ³	ASTM D1505
Mechanical			
Flexural Modulus	1300	MPa	ASTM D790
Tensile Strength at Yield	25	MPa	ASTM D638
Tensile Elongation at Yield	6	%	ASTM D638
Izod Impact Strength(notched)at 23 °C	200	J/m	ASTM D256
Izod Impact Strength(notched)at -20 °C	60	J/m	ASTM D256
Thermal			
Vicat softening point (10N)	150	°C	ASTM D1525
H.D.T. (0.45 MPa)	90	°C	ASTM D648
Accelerated oven ageing in air at 150 °C	360	hours	ASTM D3012

APPLICATIONS





EP3130UV

“Jampilen EP3130UV” is a non-filled polypropylene copolymer for injection molding with very high impact strength. The product has good U.V. resistance designed for outdoor applications. This grade is used for production of automotive parts, such as bumpers, and compounding.

Jampilen EP3130UV

Characteristic Properties

- Very high impact strength especially at low temperatures;
- Good U.V. resistance
- Good processability

Density: 0.9

Main Applications

- Automotive parts
- Outdoor applications
- Technical articles

MFI: 10

Additives

- Antioxidant package,
- Nucleating agent, UV stabilizer

Typical Properties	Value	Unit	Method
Physical			
Melt Flow Rate (230 °C, 2.16 kg)	10	g/10min	ASTM D1238
Density	0.9	g/cm ³	ASTM D1505
Mechanical			
Flexural Modulus	850	MPa	ASTM D790
Tensile Strength at Yield	18	MPa	ASTM D638
Tensile Elongation at Yield	6	%	ASTM D638
Izod Impact Strength(notched)at 23 °C	500	J/m	ASTM D256
Izod Impact Strength(notched)at -20 °C	100	J/m	ASTM D256
Thermal			
Vicat softening point (10N)	135	°C	ASTM D1525
H.D.T. (0.45 MPa)	75	°C	ASTM D648
Accelerated oven ageing in air at 150 °C	360	hours	ASTM D3012

APPLICATIONS





EP548R

“Jampilen EP548R” is a nucleated, antistatic formulated, high fluidity heterophasic copolymer used for thin walled injection molding. Items made with “Jampilen EP548R” exhibit high stiffness, relatively good impact resistance and excellent antistatic properties. Due to its excellent moldability and short cycle times, “Jampilen EP548R” allows high productivity rates. The finished items show good mechanical properties, and high dimensional stability. “Jampilen EP548R” is very well suited for the production of thin-wall articles or articles with long flow paths such as flower pots, containers, housewares, filters, filter housings and appliance components. “Jampilen EP548R” is suitable for food contact.

Jampilen EP548R Characteristic Properties

- Good impact strength; High stiffness
- Excellent antistatic properties
- Excellent moldability and short cycle times

Density: 0.9

Main Applications

- Thin-wall articles
- Articles with long flow paths such as flower pots, containers, housewares, filters, filter housings and appliance components
- Sports, Leisure and toys

MFI: 21

Additives

- Antistatic agent,
- Antioxidant package,
- Nucleating agent

Typical Properties	Value	Unit	Method
Physical			
Melt Flow Rate (230 °C, 2.16 kg)	21	g/10min	ASTM D1238
Density	0.9	g/cm ³	ASTM D1505
Mechanical			
Flexural Modulus	1500	MPa	ASTM D790
Tensile Strength at Yield	26	MPa	ASTM D638
Tensile Elongation at Yield	6	%	ASTM D638
Izod Impact Strength(notched)at 23 °C	90	J/m	ASTM D256
Izod Impact Strength(notched)at -20 °C	40	J/m	ASTM D256
Thermal			
Vicat softening point (10N)	150	°C	ASTM D1525
H.D.T. (0.45 MPa)	110	°C	ASTM D648
Accelerated oven ageing in air at 150 °C	360	hours	ASTM D3012

APPLICATIONS





EP548T

“Jampilen EP548T” is a high melt flow rate, nucleated heterophasic copolymer with a special antistatic additivation used for thin-wall injection molding, IML and houseware applications. The product features improved balance of mechanical properties. The use of “Jampilen EPX-548T” allows high productivity due to the easy mold filling and short cycle times. In comparison with conventional copolymers with the same MFR and the same toughness, “Jampilen EP548T” exhibits 15% higher rigidity. “Jampilen EP548T” is suitable for food contact.

Jampilen EP548T

Characteristic Properties

- High fluidity; Easy mold filling and short cycle times; Desirable impact/stiffness balance; Good dimensional stability; Unspecified antistatic properties

Density: 0.9

Main Applications

- TWIM/IML food containers (Margarine tubs, yoghurt pots, pots for soft cheese, pudding, etc.)
- Housewares
- Caps and closures
- Flower pots and cool boxes
- Sports, leisure and toys

MFI: 50

Additives

- Antistatic agent,
- Antioxidant package,
- Nucleating agent

Typical Properties	Value	Unit	Method
Physical			
Melt Flow Rate (230 °C, 2.16 kg)	50	g/10min	ASTM D1238
Density	0.9	g/cm ³	ASTM D1505
Mechanical			
Flexural Modulus	1450	MPa	ASTM D790
Tensile Strength at Yield	26	MPa	ASTM D638
Tensile Elongation at Yield	5	%	ASTM D638
Izod Impact Strength (notched) at 23 °C	65	J/m	ASTM D256
Izod Impact Strength (notched) at -20 °C	45	J/m	ASTM D256
Thermal			
Vicat softening point (10N)	155	°C	ASTM D1525
H.D.T. (0.45 MPa)	105	°C	ASTM D648
Accelerated oven ageing in air at 150 °C	360	hours	ASTM D3012

APPLICATIONS





EP440G

“Jampilen EP440G” is a nucleated heterophasic copolymer especially developed for extrusion applications. In comparison with standard polypropylene copolymers with the same fluidity, “Jampilen EP440G” exhibits higher stiffness, superior impact properties at room and sub-zero temperatures, very high dimensional stability and excellent creep and deforming resistance. The main applications of “Jampilen EP440G” are thermoforming, corrugated board and extrusion low molding.

Jampilen EP440G

Characteristic Properties

- Very high impact resistance
- High stiffness
- Very high dimensional stability
- Excellent creep and deforming resistance

Density: 0.9

Main Applications

- Corrugated board, panels, profiles and crates
- Corrugated pipes for automotive and machine construction
- Conduit pipes and fittings for electrical distribution and cable protection
- Blow molded bottles and containers
- Pipe fittings

MFI: 1.3

Additives

- Antioxidant package,
- Antistatic agent

Typical Properties	Value	Unit	Method
Physical			
Melt Flow Rate (230 °C, 2.16 kg)	1.3	g/10min	ASTM D1238
Density	0.9	g/cm ³	ASTM D1505
Mechanical			
Flexural Modulus	1300	MPa	ASTM D790
Tensile Strength at Yield	25	MPa	ASTM D638
Tensile Elongation at Yield	6	%	ASTM D638
Izod Impact Strength(notched) at 23 °C	500	J/m	ASTM D256
Izod Impact Strength(notched)at -20 °C	70	J/m	ASTM D256
Thermal			
Vicat softening point (10N)	150	°C	ASTM D1525
H.D.T. (0.45 MPa)	92	°C	ASTM D648
Accelerated oven ageing in air at 150 °C	360	hours	ASTM D3012

APPLICATIONS





RP120L

"Jampilen RP-120L" is a low sealing temperature polypropylene resin. The product is designed for BOPP films and is formulated with standard processing stabilization and is calcium stearate free. "Jampilen RP-120L" exhibits very high transparency, excellent gloss and outstanding heat weldability. Films from "Jampilen RP 120L" show good hot tack and low seal initiation temperature (115 to 120°C). "Jampilen RP-120L" is suitable for the production of shrinkable coextruded BOPP film for display packaging of cheese, bakery and meat products. "Jampilen RP-120L" is suitable for food contact.

Jampilen RP120L

Characteristic Properties

- Very high transparency
- Good heat weldability
- Excellent gloss
- High resistance to oxygen, moisture, fats and oils terpolymer

Density: 0.9

Main Applications

- Packaging for food, stationery, Cosmetics, clothes and cigarettes
- Shrinkable coextruded BOPP film for display packaging of cheese, bakery and meat products

MFI: 6

Additives

- Food

Typical Properties	Value	Unit	Method
Physical			
Melt Flow Rate (230 °C, 2.16 kg)	6.0	g/10min	ASTM D1238
Density	0.9	g/cm ³	ASTM D1505
Mechanical			
Flexural Modulus	650	MPa	ASTM D790
Tensile Strength at Yield	22	MPa	ASTM D638
Tensile Elongation at Yield	12	%	ASTM D638
Izod Impact Strength (notched) at 23 °C	80	J/m	ASTM D256
Thermal			
Melting Temperature (DSC)	136	°C	ASTM D3417
Vicat softening point (10N)	118	°C	ASTM D1525
H.D.T. (0.45 MPa)	65	°C	ASTM D648
Accelerated oven ageing in air at 150 °C	300	hours	ASTM D3012
Optical			
Haze (1 mm)	1.0	%	ASTM D1003
Gloss	85	---	ASTM D2543

APPLICATIONS





F332

F332

Main Features

- General purpose
- Self-coloring

Density: 1.04

Main Applications

- Households
- Small Appliances and white goods Vacuum Cleaners
- Electrical components for civil and industrial applications

Keys

- Packaged product should be protected from the atmospheric agents and stored out of direct sunlight
- NB: No Break
- /M: Matt - Digit following letter
- /M indicates increasing values of mattness

APPLICATIONS



Injection Moulding Grades

Properties	Test Condition	Test Methods	Units	
General				
Density		ISO 1183	g/cm ³	1.04
Water Absorption		ASTM D 570	%	0.3
Rheological				
Melt Flow Rate (MFR)		ISO 1133	g/10min	14
Mechanical				
Tensile Strength	50mm/min	ASTM D 638	MPa	42
Strain at break	50mm/min	ASTM D 638	%	60
Flexural Strength	2mm/min	ASTM D 790	MPa	60
Flexural Modulus	2mm/min	ASTM D 790	MPa	2250
Izod Impact Strength Notched	+23°C - thickness 3.2 mm	ISO 180/4A	J/m	190
	0°C - thickness 3.2 mm	ISO 180/4A	J/m	125
	-20°C - thickness 3.2 mm	ISO 180/4A	J/m	100
	-40°C - thickness 3.2 mm	ISO 180/4A	J/m	90
	+23°C - thickness 4 mm	ISO 180/1A	kJ/m ²	14
Charpy Impact Strength, Notched	+23°C	DIN 53453	kJ/m ²	13
	-40°C	DIN 53453	kJ/m ²	NB
Unnotched	+23°C	DIN 53453	kJ/m ²	NB
Unnotched	-40°C	DIN 53453	kJ/m ²	NB
Rockwell Hardness	scale R	ISO 2039/2	kJ/m ²	R110
Thermal				
Vicat Softening Temperature	10 N - 120°C/h	ISO 306/A120	°C	107
	50 N - 120°C/h	ISO 306/B120	°C	102
Deflection temp. under load (annealed)	1.8 MPa - 120°C/h	ASTM D 648	°C	101
Coefficient of linear thermal expansion		ASTM D 696	10 ⁻⁵ /°C	9
Thermal Conductivity		ASTM C 177	W/(Km)	0.17
Moulding Shrinkage		ISO 294.4	%	0.4-0.6
Flammability				
Flame behavior	thickness 1.5 mm	UL 94	class	HB
Glow wire test	thickness 3 mm	IEC 60695-2-1	°C	650
Electrical				
Surface resistivity	dry	IEC 60093	ohm	10+14
Volume resistivity	dry	IEC 60093	ohm*cm	10+15
Dielectric strength	dry	IEC 60243	kV/mm	30
Dielectric constant (relative permittivity)	1000 Hz - dry	IEC 60250		3.1
Dissipation factor	1000 Hz - dry	IEC 60250		15*10 ⁻³

E332

PRODUCT DATA SHEET



E332

Main Features

- Medium heat
- Resistance, good flow, good impact strength

Density: 1.04

Main Application

- Automotive Interior (Trim parts)
- Tiles
- Forms

Keys

- Packaged product should be protected from the atmospheric agents and stored out of direct sunlight
- NB: No Break
- /M: Matt - Digit following letter
- /M indicates increasing values of mattness

APPLICATIONS



Injection Moulding Grades

Properties	Test Condition	Test Methods	Units	
General				
Density		ISO 1183	g/cm ³	1.04
Water Absorption		ASTM D 570	%	0.3
Rheological				
Melt Flow Rate (MFR)		ISO 1133	g/10min	10
Mechanical				
Tensile Strength	50 mm/min	ASTM D 638	MPa	40
Strain at break	50 mm/min	ASTM D 638	%	75
Flexural Strength	2 mm/min	ASTM D 790	MPa	62
Flexural Modulus	2 mm/min	ASTM D 790	MPa	2200
Izod Impact Strength Notched	+23°C - thickness 3.2 mm	ISO 180/4A	J/m	190
	0°C - thickness 3.2 mm	ISO 180/4A	J/m	115
	- 20°C - thickness 3.2 mm	ISO 180/4A	J/m	90
	- 40°C - thickness 3.2 mm	ISO 180/4A	J/m	85
	+23°C - thickness 4 mm	ISO 180/1A	kJ/m ²	15
Charpy Impact Strength, Notched	- 40°C - thickness 4 mm	ISO 180/1A	kJ/m ²	8
	+23°C	DIN 53453	kJ/m ²	12
Unnotched	+23°C	DIN 53453	kJ/m ²	NB
Unnotched	- 40°C	DIN 53453	kJ/m ²	NB
Rockwell Hardness	scale R	ISO 2039/2	kJ/m ²	R111
Thermal				
Vicat Softening Temperature	10 N - 120°C/h	ISO 306/A120	°C	109
	50 N - 120°C/h	ISO 306/B120	°C	104
Deflection temp. under load (annealed)	1.8 MPa - 120°C/h	ASTM D 648	°C	103
Coefficient of linear thermal expansion		ASTM D 696	10 ⁻⁵ /°C	9
Thermal Conductivity		ASTM C 177	W/(Km)	0.17
Moulding Shrinkage		ISO 294.4	%	0.4-0.6
Flammability				
Flame behavior	thickness 1.5 mm	UL 94	class	HB
Glow wire test	thickness 3 mm	IEC 60695-2-1	°C	650
Electrical				
Surface resistivity	dry	IEC 60093	ohm	10+14
Volume resistivity	dry	IEC 60093	ohm*cm	10+15
Dielectric strength	dry	IEC 60243	kV/mm	30
Dielectric constant (relative permittivity)	1000 Hz - dry	IEC 60250		3.1
Dissipation factor	1000 Hz - dry	IEC 60250		15*10 ⁻³

L322

PRODUCT DATA SHEET



L322

Main Features

- Medium heat injection
- Moulding, high flow
- Good thermal
- Stability during processing

Density: 1.04

Main Application

- Domestic appliances
- Thermal resistant items (front panels, frames etc.)
- Electrical sector

Keys

- Packaged product should be protected from the atmospheric agents and stored out of direct sunlight
- NB: No Break
- /M: Matt - Digit following letter
- /M indicates increasing values of mattness

APPLICATIONS



Injection Moulding Grades

Properties	Test Condition	Test Methods	Units	
General				
Density		ISO 1183	g/cm ³	1.04
Water Absorption		ASTM D 570	%	0.3
Rheological				
Melt Flow Rate (MFR)		ISO 1133	g/10min	23
Mechanical				
Tensile Strength	50 mm/min	ASTM D 638	MPa	45
Strain at break	50 mm/min	ASTM D 638	%	20
Flexural Strength	2 mm/min	ASTM D 790	MPa	69
Flexural Modulus	2 mm/min	ASTM D 790	MPa	2350
Izod Impact Strength Notched	+23°C - thickness 3.2 mm	ISO 180/4A	J/m	170
	0°C - thickness 3.2 mm	ISO 180/4A	J/m	100
	- 20°C - thickness 3.2 mm	ISO 180/4A	J/m	70
	- 40°C - thickness 3.2 mm	ISO 180/4A	J/m	50
	+23°C - thickness 4 mm	ISO 180/1A	kJ/m ²	13
Charpy Impact Strength, Notched	- 40°C - thickness 4 mm	ISO 180/1A	kJ/m ²	6
	+23°C	DIN 53453	kJ/m ²	10
Unnotched	+23°C	DIN 53453	kJ/m ²	NB
Unnotched	- 40°C	DIN 53453	kJ/m ²	NB
Rockwell Hardness	scale R	ISO 2039/2	kJ/m ²	R109
Thermal				
Vicat Softening Temperature	10 N - 120°C/h	ISO 306/A120	°C	99
	50 N - 120°C/h	ISO 306/B120	°C	96
Deflection temp. under load (annealed)	1.8 MPa - 120°C/h	ASTM D 648	°C	96
Coefficient of linear thermal expansion		ASTM D 696	10 ⁻⁵ /°C	9
Thermal Conductivity		ASTM C 177	W/(Km)	0.17
Moulding Shrinkage		ISO 294.4	%	0.4-0.6
Flammability				
Flame behavior	thickness 1.5 mm	UL 94	class	HB
Glow wire test	thickness 3 mm	IEC 60695-2-1	°C	650
Electrical				
Surface resistivity	dry	IEC 60093	ohm	10+14
Volume resistivity	dry	IEC 60093	ohm*cm	10+15
Dielectric strength	dry	IEC 60243	kV/mm	30
Dielectric constant (relative permittivity)	1000 Hz - dry	IEC 60250		3.1
Dissipation factor	1000 Hz - dry	IEC 60250		15*10 ⁻³

F232

PRODUCT DATA SHEET



F232

Main Features

- General purpose,
- High flow injection moulding
- Grade, good impact
- Resistance, excellent gloss

Density: 1.04

Main Application

- Small and large
- Household appliances
- Vacuum cleaners, Toys
- Telephones and consumer electronics

Keys

- Packaged product should be protected from the atmospheric agents and stored out of direct sunlight
- NB: No Break
- /M: Matt - Digit following letter
- /M indicates increasing values of mattness

APPLICATIONS



Injection Moulding Grades

Properties	Test Condition	Test Methods	Units		
General					
Density		ISO 1183	g/cm ³	1.04	
Water Absorption		ASTM D 570	%	0.3	
Rheological					
Melt Flow Rate (MFR)		ISO 1133	g/10min	14	
Mechanical					
Tensile Strength	50 mm/min	ASTM D 638	MPa	45	
Strain at break	50 mm/min	ASTM D 638	%	20	
Flexural Strength	2 mm/min	ASTM D 790	MPa	69	
Flexural Modulus	2 mm/min	ASTM D 790	MPa	2350	
Izod Impact Strength Notched	+23°C - thickness 3.2 mm	ISO 180/4A	J/m	170	
	0°C - thickness 3.2 mm	ISO 180/4A	J/m	100	
	- 20°C - thickness 3.2 mm	ISO 180/4A	J/m	70	
	- 40°C - thickness 3.2 mm	ISO 180/4A	J/m	50	
	+23°C - thickness 4 mm	ISO 180/1A	kJ/m ²	13	
	- 40°C - thickness 4 mm	ISO 180/1A	kJ/m ²	6	
Charpy Impact Strength, Notched	+23°C	DIN 53453	kJ/m ²	10	
	Unnotched	+23°C	DIN 53453	kJ/m ²	NB
	Unnotched	- 40°C	DIN 53453	kJ/m ²	NB
Rockwell Hardness	scale R	ISO 2039/2	kJ/m ²	R109	
Thermal					
Vicat Softening Temperature	10 N - 120°C/h	ISO 306/A120	°C	107	
	50 N - 120°C/h	ISO 306/B120	°C	101	
Deflection temp. under load (annealed)	1.8 MPa - 120°C/h	ASTM D 648	°C	102	
Coefficient of linear thermal expansion		ASTM D 696	10 ⁻⁵ /°C	9	
Thermal Conductivity		ASTM C 177	W/(Km)	0.17	
Moulding Shrinkage		ISO 294.4	%	0.4-0.6	
Flammability					
Flame behavior	thickness 1.5 mm	UL 94	class	HB	
Glow wire test	thickness 3 mm	IEC 60695-2-1	°C	650	
Electrical					
Surface resistivity	dry	IEC 60093	ohm	10+14	
Volume resistivity	dry	IEC 60093	ohm*cm	10+15	
Dielectric strength	dry	IEC 60243	kV/mm	30	
Dielectric constant (relative permittivity)	1000 Hz - dry	IEC 60250		3.1	
Dissipation factor	1000 Hz - dry	IEC 60250		15*10 ⁻³	

B432/E

PRODUCT DATA SHEET



B432/E

Main Features

- Sheets and profile Medium
- Impact strength

Density: 1.04

Main Application

- Plain or coextruded with high draw
- Ratios for refrigeration, sanitary
- Automotive, packaging,
- Housholding (profiles)

Keys

- Packaged product should be protected from the atmospheric agents and stored out of direct sunlight
- NB: No Break
- /M: Matt - Digit following letter
- /M indicates increasing values of mattness

APPLICATIONS



Extrusion Moulding Grades

Properties	Test Condition	Test Methods	Units	
General				
Density		ISO 1183	g/cm ³	1.04
Water Absorption		ASTM D 570	%	0.3
Rheological				
Melt Flow Rate (MFR)		ISO 1133	g/10min	4
Mechanical				
Tensile Strength	50 mm/min	ASTM D 638	MPa	45
Strain at break	50 mm/min	ASTM D 638	%	45
Flexural Strength	2 mm/min	ASTM D 790	MPa	68
Flexural Modulus	2 mm/min	ASTM D 790	MPa	2300
Izod Impact Strength Notched	+23°C - thickness 3.2 mm	ISO 180/4A	J/m	220
	0°C - thickness 3.2 mm	ISO 180/4A	J/m	165
	- 20°C - thickness 3.2 mm	ISO 180/4A	J/m	125
	- 40°C - thickness 3.2 mm	ISO 180/4A	J/m	100
	+23°C - thickness 4 mm	ISO 180/1A	kJ/m ²	17
Charpy Impact Strength, Notched	- 40°C - thickness 4 mm	ISO 180/1A	kJ/m ²	9
	+23°C	DIN 53453	kJ/m ²	12
Unnotched	+23°C	DIN 53453	kJ/m ²	NB
Unnotched	- 40°C	DIN 53453	kJ/m ²	NB
Rockwell Hardness	scale R	ISO 2039/2	kJ/m ²	R110
Thermal				
Vicat Softening Temperature	10 N - 120°C/h	ISO 306/A120	°C	109
	50 N - 120°C/h	ISO 306/B120	°C	104
Deflection temp. under load (annealed)	1.8 MPa - 120°C/h	ASTM D 648	°C	104
Coefficient of linear thermal expansion		ASTM D 696	10 ⁻⁵ /°C	9
Thermal Conductivity		ASTM C 177	W/(Km)	0.17
Moulding Shrinkage		ISO 294.4	%	0.4-0.6
Flammability				
Flame behavior	thickness 1.5 mm	UL 94	class	HB
Glow wire test	thickness 3 mm	IEC 60695-2-1	°C	650
Electrical				
Surface resistivity	dry	IEC 60093	ohm	10+14
Volume resistivity	dry	IEC 60093	ohm*cm	10+15
Dielectric strength	dry	IEC 60243	kV/mm	30
Dielectric constant (relative permittivity)	1000 Hz - dry	IEC 60250		3.1
Dissipation factor	1000 Hz - dry	IEC 60250		15*10 ⁻³

B532/E

PRODUCT DATA SHEET



B432/E

Main Features

- Sheets and profile.
- Good impact strength
- High toughness

Density: 1.04

Main Application

- Plain or coextruded with high draw
- Ratios for refrigeration, sanitary
- Automotive,
- Packaging, housholding (profiles)

Keys

- Packaged product should be protected from the atmospheric agents and stored out of direct sunlight
- NB: No Break
- /M: Matt - Digit following letter
- /M indicates increasing values of mattness

APPLICATIONS



Extrusion Moulding Grades

Properties	Test Condition	Test Methods	Units	
General				
Density		ISO 1183	g/cm ³	1.04
Water Absorption		ASTM D 570	%	0.3
Rheological				
Melt Flow Rate (MFR)		ISO 1133	g/10min	5
Mechanical				
Tensile Strength	50 mm/min	ASTM D 638	MPa	35
Strain at break	50 mm/min	ASTM D 638	%	45
Flexural Strength	2 mm/min	ASTM D 790	MPa	68
Flexural Modulus	2 mm/min	ASTM D 790	MPa	2300
Izod Impact Strength Notched	+23°C - thickness 3.2 mm	ISO 180/4A	J/m	280
	0°C - thickness 3.2 mm	ISO 180/4A	J/m	190
	- 20°C - thickness 3.2 mm	ISO 180/4A	J/m	150
	- 40°C - thickness 3.2 mm	ISO 180/4A	J/m	125
	+23°C - thickness 4 mm	ISO 180/1A	kJ/m ²	20
	- 40°C - thickness 4 mm	ISO 180/1A	kJ/m ²	10
Charpy Impact Strength, Notched	+23°C	DIN 53453	kJ/m ²	16
	Unnotched	+23°C	DIN 53453	kJ/m ²
Unnotched	- 40°C	DIN 53453	kJ/m ²	NB
Rockwell Hardness	scale R	ISO 2039/2	kJ/m ²	R110
Thermal				
Vicat Softening Temperature	10 N - 120°C/h	ISO 306/A120	°C	108
	50 N - 120°C/h	ISO 306/B120	°C	104
Deflection temp. under load (annealed)	1.8 MPa - 120°C/h	ASTM D 648	°C	104
Coefficient of linear thermal expansion		ASTM D 696	10 ⁻⁵ /°C	9
Thermal Conductivity		ASTM C 177	W/(Km)	0.17
Moulding Shrinkage		ISO 294.4	%	0.4-0.6
Flammability				
Flame behavior	thickness 1.5 mm	UL 94	class	HB
Glow wire test	thickness 3 mm	IEC 60695-2-1	°C	650
Electrical				
Surface resistivity	dry	IEC 60093	ohm	10+14
Volume resistivity	dry	IEC 60093	ohm*cm	10+15
Dielectric strength	dry	IEC 60243	kV/mm	30
Dielectric constant (relative permittivity)	1000 Hz - dry	IEC 60250		3.1
Dissipation factor	1000 Hz - dry	IEC 60250		15*10 ⁻³



PRODUCT DATA SHEET

B732/E

B732/E

Main Features

- Very high
- Impact strength

Density: 1.04

Main Application

- Extrusion of thick sheets for sanitary
- Automotive applications

Keys

- Packaged product should be protected from the atmospheric agents and stored out of direct sunlight
- NB: No Break
- /M: Matt - Digit following letter
- /M indicates increasing values of mattness

APPLICATIONS



Extrusion Moulding Grades

Properties	Test Condition	Test Methods	Units	
General				
Density		ISO 1183	g/cm ³	1.04
Water Absorption		ASTM D 570	%	0.3
Rheological				
Melt Flow Rate (MFR)		ISO 1133	g/10min	4.5
Mechanical				
Tensile Strength	50 mm/min	ASTM D 638	MPa	45
Strain at break	50 mm/min	ASTM D 638	%	45
Flexural Strength	2 mm/min	ASTM D 790	MPa	60
Flexural Modulus	2 mm/min	ASTM D 790	MPa	2200
Izod Impact Strength Notched	+23°C - thickness 3.2 mm	ISO 180/4A	J/m	350
	0°C - thickness 3.2 mm	ISO 180/4A	J/m	300
	- 20°C - thickness 3.2 mm	ISO 180/4A	J/m	200
	- 40°C - thickness 3.2 mm	ISO 180/4A	J/m	140
	+23°C - thickness 4 mm	ISO 180/1A	kJ/m ²	28
Charpy Impact Strength, Notched	- 40°C - thickness 4 mm	ISO 180/1A	kJ/m ²	12
	+23°C	DIN 53453	kJ/m ²	20
Unnotched	+23°C	DIN 53453	kJ/m ²	NB
Unnotched	- 40°C	DIN 53453	kJ/m ²	NB
Rockwell Hardness	scale R	ISO 2039/2	kJ/m ²	R103
Thermal				
Vicat Softening Temperature	10 N - 120°C/h	ISO 306/A120	°C	109
	50 N - 120°C/h	ISO 306/B120	°C	104
Deflection temp. under load (annealed)	1.8 MPa - 120°C/h	ASTM D 648	°C	100
Coefficient of linear thermal expansion		ASTM D 696	10 ⁻⁵ /°C	9
Thermal Conductivity		ASTM C 177	W/(Km)	0.17
Moulding Shrinkage		ISO 294.4	%	0.4-0.6
Flammability				
Flame behavior	thickness 1.5 mm	UL 94	class	HB
Glow wire test	thickness 3 mm	IEC 60695-2-1	°C	650
Electrical				
Surface resistivity	dry	IEC 60093	ohm	10+14
Volume resistivity	dry	IEC 60093	ohm*cm	10+15
Dielectric strength	dry	IEC 60243	kV/mm	30
Dielectric constant (relative permittivity)	1000 Hz - dry	IEC 60250		3.1
Dissipation factor	1000 Hz - dry	IEC 60250		15*10 ⁻³

D232/M3

PRODUCT DATA SHEET



D232/M3

Main Features

- Low gloss, extrusion

Density: 1.04

Main Application

- Extrusion/coextrusion of sheets
- with matt surfac
- Household profiles

Keys

- Packaged product should be protected from the atmospheric agents and stored out of direct sunlight
- NB: No Break
- /M: Matt - Digit following letter
- /M indicates increasing values of mattness

APPLICATIONS



Extrusion Moulding Grades

Properties	Test Condition	Test Methods	Units	
General				
Density		ISO 1183	g/cm ³	1.04
Water Absorption		ASTM D 570	%	0.3
Rheological				
Melt Flow Rate (MFR)		ISO 1133	g/10min	8
Mechanical				
Tensile Strength	50 mm/min	ASTM D 638	MPa	27
Strain at break	50 mm/min	ASTM D 638	%	100
Flexural Strength	2 mm/min	ASTM D 790	MPa	40
Flexural Modulus	2 mm/min	ASTM D 790	MPa	1550
Izod Impact Strength Notched	+23°C - thickness 3.2 mm	ISO 180/4A	J/m	110
	0°C - thickness 3.2 mm	ISO 180/4A	J/m	90
	- 20°C - thickness 3.2 mm	ISO 180/4A	J/m	80
	- 40°C - thickness 3.2 mm	ISO 180/4A	J/m	75
	+23°C - thickness 4 mm	ISO 180/1A	kJ/m ²	9.5
	- 40°C - thickness 4 mm	ISO 180/1A	kJ/m ²	79
Charpy Impact Strength, Notched	+23°C	DIN 53453	kJ/m ²	NB
	+23°C	DIN 53453	kJ/m ²	NB
Unnotched	- 40°C	DIN 53453	kJ/m ²	R97
	scale R	ISO 2039/2	kJ/m ²	R103
Thermal				
Vicat Softening Temperature	10 N - 120°C/h	ISO 306/A120	°C	106
	50 N - 120°C/h	ISO 306/B120	°C	101
Deflection temp. under load (annealed)	1.8 MPa - 120°C/h	ASTM D 648	°C	101
Coefficient of linear thermal expansion		ASTM D 696	10 ⁻⁵ /°C	9
Thermal Conductivity		ASTM C 177	W/(Km)	0.17
Moulding Shrinkage		ISO 294.4	%	0.4-0.6
Flammability				
Flame behavior	thickness 1.5 mm	UL 94	class	HB
Glow wire test	thickness 3 mm	IEC 60695-2-1	°C	650
Electrical				
Surface resistivity	dry	IEC 60093	ohm	10+14
Volume resistivity	dry	IEC 60093	ohm*cm	10+15
Dielectric strength	dry	IEC 60243	kV/mm	30
Dielectric constant (relative permittivity)	1000 Hz - dry	IEC 60250		3.1
Dissipation factor	1000 Hz - dry	IEC 60250		15*10 ⁻³

C442

PRODUCT DATA SHEET



C442

Main Features

- Heat resistance
- Good flow
- Good impact strength

Density: 1.04

Main Application

- Automotive interior (extruded profiles, interior trim),
- Exterior (grilles, mirrors)

Keys

- Packaged product should be protected from the atmospheric agents and stored out of direct sunlight
- NB: No Break
- /M: Matt - Digit following letter
- /M indicates increasing values of mattness

APPLICATIONS



Extrusion Moulding Grades

Properties	Test Condition	Test Methods	Units	
General				
Density		ISO 1183	g/cm ³	1.04
Water Absorption		ASTM D 570	%	0.3
Rheological				
Melt Flow Rate (MFR)		ISO 1133	g/10min	6
Mechanical				
Tensile Strength	50 mm/min	ASTM D 638	MPa	43
Strain at break	50 mm/min	ASTM D 638	%	45
Flexural Strength	2 mm/min	ASTM D 790	MPa	65
Flexural Modulus	2 mm/min	ASTM D 790	MPa	2300
Izod Impact Strength Notched	+23°C - thickness 3.2 mm	ISO 180/4A	J/m	200
	0°C - thickness 3.2 mm	ISO 180/4A	J/m	165
	- 20°C - thickness 3.2 mm	ISO 180/4A	J/m	125
	- 40°C - thickness 3.2 mm	ISO 180/4A	J/m	100
	+23°C - thickness 4 mm	ISO 180/1A	kJ/m ²	17
Charpy Impact Strength, Notched	- 40°C - thickness 4 mm	ISO 180/1A	kJ/m ²	9
	+23°C	DIN 53453	kJ/m ²	12
Unnotched	+23°C	DIN 53453	kJ/m ²	NB
Unnotched	- 40°C	DIN 53453	kJ/m ²	NB
Rockwell Hardness	scale R	ISO 2039/2	kJ/m ²	R110
Thermal				
Vicat Softening Temperature	10 N - 120°C/h	ISO 306/A120	°C	114
	50 N - 120°C/h	ISO 306/B120	°C	108
Deflection temp. under load (annealed)	1.8 MPa - 120°C/h	ASTM D 648	°C	108
Coefficient of linear thermal expansion		ASTM D 696	10 ⁻⁵ /°C	9
Thermal Conductivity		ASTM C 177	W/(Km)	0.17
Moulding Shrinkage		ISO 294.4	%	0.4-0.6
Flammability				
Flame behavior	thickness 1.5 mm	UL 94	class	HB
Glow wire test	thickness 3 mm	IEC 60695-2-1	°C	650
Electrical				
Surface resistivity	dry	IEC 60093	ohm	10+14
Volume resistivity	dry	IEC 60093	ohm*cm	10+15
Dielectric strength	dry	IEC 60243	kV/mm	30
Dielectric constant (relative permittivity)	1000 Hz - dry	IEC 60250		3.1
Dissipation factor	1000 Hz - dry	IEC 60250		15*10 ⁻³

SOLT6302

PRODUCT DATA SHEET



SOL T6302

Main Features

- Bitumen modification,
- Automotive interior
- Extruded profiles, interior trim
- Exterior (grilles, mirrors)

Density: 1.04

Main Application

- Automotive interior (extruded profiles, interior trim),
- Exterior (grilles, mirrors)

Keys

- Packaged product should be protected from the atmospheric agents and stored out of direct sunlight
- NB: No Break
- /M: Matt - Digit following letter
- /M indicates increasing values of mattness

APPLICATIONS



Europrene

Properties	Test Methods	Analytical Manual	Units	
General				
Mooney Viscosity	ASTM D1646	MPP16	ML1+4 @ 100°C	N/A
Bound Styrene	ASTM D5775	MPP5-MPP6	wt %	29 – 33
Block styrene	ASTM D3314	MPP8	wt %	100
Solution viscosity*	ASTM D5774	MPP9	cPs	N/A
Gel content		MPP12	arbitrary	N/A
Molecular weight		MPP1	KDalton	95 - 125
Coupling efficiency		MPP1	%	84 min
Volatile matter content	ASTM D5668	MPP10	wt %	1 max
Residual solvent		MPP18	ppm	< 10
Colour	ASTM E313	MPP13	Yellow index	10 max
Solution color (Pt/Co)	ASTM D1209		arbitrary	N/A
Vinyl content		MPP5-MPP6	wt % on butadiene	10.0 – 14.0
Ash content	ASTM D5667	MPP15	wt %	N/A
Solvent extractables	ASTM D5774	MPP11	wt %	N/A

Packaging



Bags on Pallet
Big Bags & Wooden Crates

SOLT161B

PRODUCT DATA SHEET



SOL T161B

Main Features

- Bitumen modification for waterproofing membranes used in roofing and bridge insulation, road paving & pipe coating

Keys

- Packaged product should be protected from the atmospheric agents and stored out of direct sunlight
- NB: No Break
- /M: Matt - Digit following letter
- /M indicates increasing values of mattness

APPLICATIONS



Europrene

Properties	Test Methods	Analytical Manual	Units	
General				
Mooney Viscosity	ASTM D1646	MPP16	ML1+4 @ 100°C	N/A
Bound Styrene	ASTM D5775	MPP5-MPP6	wt %	29 – 33
Block styrene	ASTM D3314	MPP8	wt %	100
Solution viscosity*	ASTM D5774	MPP9	cPs	N/A
Gel content		MPP12	arbitrary	N/A
Molecular weight		MPP1	KDalton	220 - 260
Coupling efficiency		MPP1	%	84 min
Volatile matter content	ASTM D5668	MPP10	wt %	1 max
Residual solvent		MPP18	ppm	< 10
Colour	ASTM E313	MPP13	Yellow index	10 max
Solution color (Pt/Co)	ASTM D1209		arbitrary	N/A
Vinyl content		MPP5-MPP6	wt % on butadiene	10.0 – 14.0
Ash content	ASTM D5667	MPP15	wt %	N/A
Solvent extractables	ASTM D5774	MPP11	wt %	N/A

Packaging



Bags on Pallet
Big Bags & Wooden Crates

SOLT6306

PRODUCT DATA SHEET



SOL T6306

Main Features

- Bitumen modification in waterproofing systems, formulated compounds for shoe soles and technical goods

Keys

- Packaged product should be protected from the atmospheric agents and stored out of direct sunlight
- NB: No Break
- /M: Matt - Digit following letter
- /M indicates increasing values of mattness

APPLICATIONS



Europrene

Properties	Test Methods	Analytical Manual	Units	
General				
Mooney Viscosity	ASTM D1646	MPP16	ML1+4 @ 100°C	N/A
Bound Styrene	ASTM D5775	MPP5-MPP6	wt %	34 - 38
Block styrene	ASTM D3314	MPP8	wt %	100
Solution viscosity*	ASTM D5774	MPP9	cPs	N/A
Gel content		MPP12	arbitrary	N/A
Molecular weight		MPP1	KDalton	245 - 275
Coupling efficiency		MPP1	%	85 min
Volatile matter content	ASTM D5668	MPP10	wt %	1 max
Residual solvent		MPP18	ppm	< 10
Colour	ASTM E313	MPP13	Yellow index	15 max
Solution color (Pt/Co)	ASTM D1209		arbitrary	N/A
Vinyl content		MPP5-MPP6	wt % on butadiene	10.0 – 14.0
Ash content	ASTM D5667	MPP15	wt %	N/A
Solvent extractables	ASTM D5774	MPP11	wt %	N/A

Packaging



Bags on Pallet
Big Bags & Wooden Crates

SOLB183

PRODUCT DATA SHEET



SOL B183

Main Features

- Mainly used in plastic material (PS, ABS) modification.

Keys

- Packaged product should be protected from the atmospheric agents and stored out of direct sunlight
- NB: No Break
- /M: Matt - Digit following letter
- /M indicates increasing values of mattness

APPLICATIONS



Europrene

Properties	Test Methods	Analytical Manual	Units	
General				
Mooney Viscosity	ASTM D1646	MPP16	ML1+4 @ 100°C	60 – 80
Bound Styrene	ASTM D5775	MPP5-MPP6	wt %	9.0 – 11.0
Block styrene	ASTM D3314	MPP8	wt %	4 – 6
Solution viscosity*	ASTM D5774	MPP9	cPs	N/A
Gel content		MPP12	arbitrary	N/A
Molecular weight		MPP1	KDalton	N/A
Coupling efficiency		MPP1	%	N/A
Volatile matter content	ASTM D5668	MPP10	wt %	0.75 max
Residual solvent		MPP18	ppm	N/A
Colour	ASTM E313	MPP13	Yellow index	N/A
Solution color (Pt/Co)	ASTM D1209		arbitrary	N/A
Vinyl content		MPP5-MPP6	wt % on butadiene	9.0 – 11.0
Ash content	ASTM D5667	MPP15	wt %	0.2 max
Solvent extractables	ASTM D5774	MPP11	wt %	N/A

Packaging



Bags(25kg) on Pallet
30-36 Bales in Wooden Crates

InteneP30

PRODUCT DATA SHEET



Intene P30

Main Features

- The star like structure of P30 guarantees value in viscosity and, contemporary, a molecular weight sufficiently high.
- The high capacity of loading carbon black and good extrudibility made this grade suitable abrasion strips
- Construction in tire building.

Keys

- Packaged product should be protected from the atmospheric agents and stored out of direct sunlight
- NB: No Break
- /M: Matt - Digit following letter
- /M indicates increasing values of mattness

APPLICATIONS



Intense

Properties	Test Methods	Analytical Manual	Units	
General				
Mooney Viscosity	ASTM D1646	MPP16	ML1+4 @ 100°C	45 – 55
Bound Styrene	ASTM D5775	MPP5-MPP6	wt %	N/A
Block styrene	ASTM D3314	MPP8	wt %	N/A
Solution viscosity*	ASTM D5774	MPP9	cPs	35 - 50
Gel content		MPP12	arbitrary	4 max
Molecular weight		MPP1	KDalton	N/A
Coupling efficiency		MPP1	%	N/A
Volatile matter content	ASTM D5668	MPP10	wt %	0.75 max
Residual solvent		MPP18	ppm	N/A
Colour	ASTM E313	MPP13	Yellow index	N/A
Solution color (Pt/Co)	ASTM D1209		arbitrary	10 max
Vinyl content		MPP5-MPP6	wt % on butadiene	11 – 13
Ash content	ASTM D5667	MPP15	wt %	0.2 max
Solvent extractables	ASTM D5774	MPP11	wt %	N/A

Packaging



Bags(25kg) on Pallet
30-36 Bales in Wooden Crates

BR245

PRODUCT DATA SHEET

BR245

Main Features

- BR245 rubber is a solution polymerized low cis star
- Branched, low coupled, dry
- Polybutadiene produced using alkyl lithium initiator in batch reactors.

Main Applications

- BR 245 polybutadiene is used in tire compounds and in some mechanical good compounds. Good hysteresis properties of BR 245 allow it to be blended with natural rubber to produce enhanced properties in truck tire treads. The addition of polybutadiene low cis to natural rubber upgrades abrasion and cracking resistance, maintains good resilience and also provides better resistance to overcure and degradation during aging. BR 245 and SOL R 1204 were tried in blends with natural rubber in large size passengers tyre reducing groove cracking compared to natural rubber.

Key

- BR245 rubber is a solution polymerized low cis star branched, low coupled, dry polybutadiene produced using alkyl lithium initiator in batch reactors.

APPLICATIONS



Europrene

Properties	Test Methods	Analytical Manual	Units	
General				
Mooney Viscosity	ASTM D1646	MPP16	ML1+4 @ 100°C	50 – 60
Bound Styrene	ASTM D5775	MPP5-MPP6	wt %	N/A
Block styrene	ASTM D3314	MPP8	wt %	N/A
Solution viscosity*	ASTM D5774	MPP9	cPs	N/A
Gel content		MPP12	arbitrary	N/A
Molecular weight		MPP1	KDalton	N/A
Coupling efficiency		MPP1	%	N/A
Volatile matter content	ASTM D5668	MPP10	wt %	0.6 max
Residual solvent		MPP18	ppm	N/A
Colour	ASTM E313	MPP13	Yellow index	N/A
Solution color (Pt/Co)	ASTM D1209		arbitrary	N/A
Vinyl content		MPP5-MPP6	wt % on butadiene	11 – 13
Ash content	ASTM D5667	MPP15	wt %	0.08
Solvent extractables	ASTM D5774	MPP11	wt %	N/A

Packaging



Bags(25kg) on Pallet
30-36 Bales in Wooden Crates

BR277

PRODUCT DATA SHEET



BR277

Main Features

- BR277 rubber is a solution polymerized low cis star branched, low efficiency coupled, oil extended polybutadiene produced using alkyl lithium initiator in batch reactors.

Keys

- BR 277 oil extended polybutadiene is used in tire compounds and in some mechanical good compounds.

APPLICATIONS



Europrene

Properties	Test Methods	Analytical Manual	Units	
General				
Mooney Viscosity	ASTM D1646	MPP16	ML1+4 @ 100°C	37 – 47
Bound Styrene	ASTM D5775	MPP5-MPP6	wt %	N/A
Block styrene	ASTM D3314	MPP8	wt %	N/A
Solution viscosity*	ASTM D5774	MPP9	cPs	N/A
Gel content		MPP12	arbitrary	N/A
Molecular weight		MPP1	KDalton	N/A
Coupling efficiency		MPP1	%	N/A
Volatile matter content	ASTM D5668	MPP10	wt %	0.3 max
Residual solvent		MPP18	ppm	N/A
Colour	ASTM E313	MPP13	Yellow index	N/A
Solution color (Pt/Co)	ASTM D1209		arbitrary	N/A
Vinyl content		MPP5-MPP6	wt % on butadiene	11 – 13
Ash content	ASTM D5667	MPP15	wt %	0.04
Solvent extractables	ASTM D5774	MPP11	wt %	26.3–29.3

Packaging



Bags(25kg) on Pallet
30-36 Bales in Wooden Crates



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