POLYPROPYLENE

FY4012E

Polypropylene Homopolymer for Yarn/Raffia

Description

FY4012E is a polypropylene homopolymer intended for yarn extrusion. Yarn made from this resin exhibits high strength tape and low shrinkage.

Applications

- Woven sacks
- Carpet packing
- Binding tape
- Monofilament

Resin Properties	Unit	Test Method	Typical Value
MFR (230ºC/2.16Kg)	g/10min	ASTM D1238	4.0
Density	g/cm^3	ASTM D792 Method A	0.9
Mechanical Properties*			
Tensile Strength at Yield	MPa	ASTM D638	32
Tensile Elongation at Yield	%	ASTM D638	9.0
Tensile Strength at Break	MPa	ASTM D638	18
Tensile Elongation at Break	%	ASTM D638	110
Flexural Modulus	MPa	ASTM D790	1300
Izod Impact, Notched 23deg.C	kJ/m^2	ASTM D256	3.0
Rockwell Hardness		ASTM D785	99
Thermal Properties*			
Vicat Softening Temperature @10N	ºC	ASTM D1525	152

*Test specimen preparation Method: Pursuant to ASTM D4101

Processing conditions: Recommended Extrusion Temperature: 230-260 ºC

Stretching Temperature: 140-160 °C

Stretching Ratio: 4 – 6

Storage and handling: FY4012E should be stored in a dry cool place with adequate ventilation and protected from UV-light at temperature below 50 ºC. It is advisable to process polypropylene resins within 6 months after delivery.

Food Contact Compliance and other Regulations: Please visit Petro Rabigh website.

Teldene® H08ML

LyondellBasell licensed Spheripol Process

POLYPROPYLENE HOMOPOLYMER

Technical Data Sheet

Typical Applications

- Used for the production of consumer goods such as food containers, house wares, toys and garden furniture
- Components for appliances and parts for the automotive industry

Key Characteristics

- Good flow properties, High Stiffness, easy processing
- Food contact approval for specific applications

Processing Methods

- Injection Molding

Resin	*Conditions*	*Method*	*Value*	*Unit*
Density	23°C	ISO 1183	*0.900*	g/cm^3
Melt Flow Rate (MFR)	230°C/2.16 kg	ASTM D 1238-13	*9*	g/10-min
Mechanical				
Flexural Modulus		ISO 178	*1,500*	MPa
Tensile Stress at Break	50-mm/min	ISO 527	*24*	MPa
Tensile Stress at Yield	50-mm/min	ISO 527	*34*	MPa
Tensile Strain at Break	50-mm/min	ISO 527	*> 50*	%
Tensile Strain at Yield	50-mm/min	ISO 527	*13*	%
Izod $_{Notched}$	23°C	ISO 180	*4.4*	kJ/m^2
Thermal				
Heat Deflection Temperature	0.45 MPa Un-annealed	ISO 75B	*115*	°C
Vicat Softening Temperature	A50 (50°C/h 10N)	ISO 306	*155*	°C

Technical information

Note: The above are typical data representing the product; not to be construed as analysis certificate or specifications.

Teldene® H08ML

LyondellBasell licensed Spheripol Process

POLYPROPYLENE HOMOPOLYMER

Technical Data Sheet

Special Features

Shows broad processing window while providing good mechanical properties

Processing Conditions

Average extruder temperature range may be kept between 240 - 260°C.

Food Regulation

This product is defined as a preparation under specific food contact regulation. Detailed information will be provided in a relevant document "Regulatory Compliances Product Declaration" upon request.

Storage and Handling

Polypropylene resin should be stored to prevent a direct exposure to sunlight and heat. The Product estimated shelf life is one year starting from production date, adequate humidity below 80%, and temperature below 40°C. Customers might not fully follow the optimal storage condition, hence the shelf life recommended at customer site is six months only as received. Please refer to "**Material Safety Datasheet**" (MSDS) for handling and storage information.

TECHNICAL DATASHEET

PP H2245

PRODUCT DESCRIPTION

PP H2245 is a Polypropylene Homopolymer with a Melt Flow Rate (MFR) of 24.5 g/10min. PP H2245 is a medium molecular weight distribution with anti-gas fading stabilization system. It has excellent gloss and chining properties.

TRPICAL APPLICATION

PP H2245 is used for the extrusion of bulk continuous filament (BCF) for carpet pile and high dtex continuous filament (CF) yarns. It is also suitable for non-woven.

TYPICAL DATA

Physical	Method	Unit	Value
Melt Flow Rate (230°C/2.16 kg)	ISO 1133	g/10min	24.5
Melting Temperature	ISO 11357-3	°C	163
Vicat Softening Temperature	ISO 306	°C	154
Heat Distortion Temperature @ 0.45 MPa	ISO 75-2	°C	85
Density	ISO 1183	g/cm³	0.9
Mechanical	**Method**	**Unit**	**Value**
Tensile Strength @ Yield	ISO 527-2	MPa	34
Tensile Elongation @ Yield	ISO 527-2	%	8
Flexural Modulus (1% Secant)	ISO 178	MPa	1500
Charpy Impact Strength (Notched) at 23 °C	ISO 179/1eA	KJ/m²	3.0
Rockwell Hardness	ISO 2039-2	R	95
BCF Processing Conditions			
Extrusion Temperatures			210 ~ 240° C
Rolls Temperature			80 ~ 120° C
Draw Ratio			2.8 ~ 3.3
Quenching Temperature			10 ~ 20° C
Texturising Temperature			150 ~ 170° C

NOTE Processing parameters should only be used as guidelines. The above properties values are not to be construed as specifications.

POLYPROPYLENE

FS2011E

Polypropylene Homopolymer for Biaxially Oriented Film

Description

FS2011E is a polypropylene homopolymer intended for the extrusion of biaxially oriented film. It is easy to process and suitable for metallization. The film made from this resin exhibits excellent transparency, excellent mechanical and barrier properties.

Applications

- Food packaging
- Printing lamination
- Adhesive tape
- Stationary Packaging
- Metalized film

Resin Properties		Unit	Test Method	Typical Value
MFR (230ºC/2.16Kg)		g/10min	ASTM D1238	2.2
Density		g/cm^3	ASTM D792 Method A	0.9
Mechanical Properties*				
Tensile Strength at Yield		MPa	ASTM D638	32
Tensile Elongation at Yield		%	ASTM D638	9.0
Tensile Strength at Break		MPa	ASTM D638	19
Tensile Elongation at Break		%	ASTM D638	155
Flexural Modulus		MPa	ASTM D790	1280
Flexural Strength		MPa	ASTM D790	34
Izod Impact, Notched 23deg.C		kJ/m^2	ASTM D256	2.9
Rockwell Hardness			ASTM D785	98
Film Properties**				
Tensile Strength at Break	MD	MPa	ASTM D882	110
	TD			215
Tensile Elongation at Break	MD	%	ASTM D882	85
	TD			17
1% Secant Modulus	MD	MPa	ASTM D882	2050
	TD			3700
Haze		%	ASTM D1003	0.2
Gloss 45-degree		--	ASTM D2457	155
Thermal Properties*				
Vicat Softening Temperature @10N		ºC	ASTM D1525	153

*Test specimen preparation method: Compliant with ASTM D 4101.
**Film processing conditions: Single layer film produced by sequential bi-axially oriented film machine, MDO stretching ratio is 5, TDO stretching ratio is 8, Film thickness 20 µm.

Processing conditions: Recommended Extrusion Temperature: 190 – 250 ºC

Stretching Temperature: 130 – 160°C

Stretching Ratio MD/TD: 4 – 7 / 7 – 10

Storage and handling: FS2011E should be stored in a dry cool place with adequate ventilation and protected from UV-light at temperature below 50 ºC. It is advisable to process polypropylene resins within 6 months after delivery.

Teldene® H12ML

LyondellBasell licensed Spheripol Process

POLYPROPYLENE HOMOPOLYMER

Technical Data Sheet

Typical Applications

- Used for the production of furniture, crates, containers, caps and closures
- General purpose injection molding application

Key Characteristics

- Good flow properties, High Stiffness
- Food contact approval for specific applications

Processing Methods

- Injection Molding

Resin	*Conditions*	*Method*	*Value*	*Unit*
Density	23°C	ISO 1183	*0.900*	g/cm^3
Melt Flow Rate (MFR)	230°C/2.16 kg	ASTM D 1238-13	*12*	g/10-min
Mechanical				
Flexural Modulus		ISO 178	*1,500*	MPa
Tensile Modulus	1-mm/min	ISO 527	*1,550*	MPa
Tensile Stress at Break	50-mm/min	ISO 527	*26*	MPa
Tensile Stress at Yield	50-mm/min	ISO 527	*35*	MPa
Tensile Strain at Break	50-mm/min	ISO 527	*> 50*	%
Tensile Strain at Yield	50-mm/min	ISO 527	*13*	%
Izod $_{Notched}$	23°C	ISO 180	*3.9*	kJ/m^2
Thermal				
Heat Deflection Temperature	0.45 MPa Un-annealed	ISO 75B	*91*	°C
Vicat Softening Temperature	A50 (50°C/h 10N)	ISO 306	*152*	°C

Technical information

Note: The above are typical data representing the product; not to be construed as analysis certificate or specifications.

Teldene® H12ML

LyondellBasell licensed Spheripol Process

POLYPROPYLENE HOMOPOLYMER

Technical Data Sheet

Special Features

Shows broad processing window while providing good mechanical properties

Processing Conditions

Average extruder temperature range may be kept between 240 - 260°C.

Food Regulation

This product is defined as a preparation under specific food contact regulation. Detailed information will be provided in a relevant document "Regulatory Compliances Product Declaration" upon request.

Storage and Handling

Polypropylene resin should be stored to prevent a direct exposure to sunlight and heat. The Product estimated shelf life is one year starting from production date, adequate humidity below 80%, and temperature below 40°C. Customers might not fully follow the optimal storage condition, hence the shelf life recommended at customer site is six months only as received. Please refer to "**Material Safety Datasheet**" (MSDS) for handling and storage information.

Teldene® H17ML LyondellBasell licensed Spheripol Process

POLYPROPYLENE HOMOPOLYMER

Technical Data Sheet

Typical Applications

- Used for the production of thin-walled articles, containers, boxes, caps & closures, household articles and toys
- Components of compounding applications

Key Characteristics

- Medium-High fluidity
- Easy mold filling
- Short cycle times
- Good dimensional stability and high stiffness
- Food contact approval for specific applications (*refer to* ***NATPET***)

Processing Methods

- Injection Molding

Resin	*Conditions*	*Method*	*Value*	*Unit*
Density	23°C	ISO 1183	*0.900*	g/cm^3
Melt Flow Rate (MFR)	230°C/2.16 kg	ASTM D 1238-13	*16*	g/10-min
Mechanical				
Flexural Modulus		ISO 178	*1,550*	MPa
Tensile Stress at Yield	50-mm/min	ISO 527	*35*	MPa
Tensile Strain at Yield	50-mm/min	ISO 527	*13*	%
Izod $_{Notched}$	23°C	ISO 180	*3*	kJ/m^2
Thermal				
Heat Deflection Temperature	0.45 MPa Un-annealed	ISO 75B	*115*	°C
Vicat Softening Temperature	A50 (50°C/h 10N)	ISO 306	*155*	°C

Technical information

Note: The above are typical data representing the product; not to be construed as analysis certificate or specifications.

Teldene® H17ML LyondellBasell licensed Spheripol Process

POLYPROPYLENE HOMOPOLYMER

Technical Data Sheet

Special Features
Shows broad processing window while providing good mechanical properties

Processing Conditions
Average extruder temperature range may be kept between 240 - 260°C.

Food Regulation
This product is defined as a preparation under specific food contact regulation. Detailed information will be provided in a relevant document "Regulatory Compliances Product Declaration" upon request.

Storage and Handling
Polypropylene resin should be stored to prevent a direct exposure to sunlight and heat. The Product estimated shelf life is one year starting from production date, adequate humidity below 80%, and temperature below 40°C. Customers might not fully follow the optimal storage condition, hence the shelf life recommended at customer site is six months only as received. Please refer to "**Material Safety Datasheet**" (MSDS) for handling and storage information.

TECHNICAL DATASHEET

QR6701K

PRODUCT DESCRIPTION

Provisional - PP random co-polymer for Injection moulding QR6701K is specially developed for producing injection molded & ISBM articles with very high clarity at low processing temperatures and also has better impact properties than homo PP counterparts. This grade contains advance clarifier & anti-static agent.

TRPICAL APPLICATION

QR6701K can be used for clear houseware & packaging items, appliances, caps & closures, lids and bottles (ISBM).

TYPICAL DATA

Properties	Unit	Value (1)	ASTM Method
Resin Properties			
Melt Flow Rate @ 230°C & 2.16 kg load	g/10 min.	3	D 1238
Density @ 23°C	kg/m^3	905	D 792
Mechanical Properties (2)			
Tensile Strength @ Yield	MPa	45	D 638
Tensile Elongation @ Yield	%	10	D 638
Flexural Modulus (1% Secant)	MPa	1600	D 790A
		1850	D 790B
Notched Izod Impact Strength @ 23°C	J/m	35	D 256
Rockwell Hardness, R-Scale	-	102	D 785
Thermal Properties(2)			
Vicat Softening Point	°C	150	D 1525B
Heat Deflection Temperature @ 455 KPa	°C	120	D 648

Teldene® H25FBA LyondellBasell licensed Spheripol Process

POLYPROPYLENE HOMOPOLYMER

Technical Data Sheet

Typical Applications

- Production of bulk continuous filaments (BCF), continuous filaments (CF) and staple fiber
- Specially used for carpet and upholstery application
- Used for automotive compounding application

Key Characteristics

- Formulated with anti-gas fading stabilization package
- Reactor grade (no peroxide added)

Processing Methods

- Fiber (spinning) Extrusion
- Bulk Filaments Extrusion
- Co-Extrusion

Resin	*Conditions*	*Method*	*Value*	*Unit*
Density	23°C	ISO 1183	*0.900*	g/cm^3
Melt Flow Rate (MFR)	230°C/2.16 kg	ASTM D 1238-13	*25*	g/10-min
Mechanical				
Flexural Modulus		ISO 178	*1,700*	MPa
Tensile Stress at Break	50-mm/min	ISO 527	*36*	MPa
Tensile Strain at Break	50-mm/min	ISO 527	*> 50*	%
Tensile Strain at Yield	50-mm/min	ISO 527	*10*	%
Izod $_{Notched}$	23°C	ISO 180	*2.2*	kJ/m^2
Thermal				
Heat Deflection Temperature	0.45 MPa Un-annealed	ISO 75B	*89*	°C
Vicat Softening Temperature	A50 (50°C/h 10N)	ISO 306	*155*	°C

Technical information

Note: The above are typical data representing the product; not to be construed as analysis certificate or specifications.

Teldene® H25FBA LyondellBasell licensed Spheripol Process

POLYPROPYLENE HOMOPOLYMER

Technical Data Sheet

Special Features

- **Woven application**
  - Shows broad processing window while providing excellent mechanical properties
  - Tested on Neumag S+ machine and qualified by Neumag in their polymer recommendation list
- **Non-Woven application**
  - Tested on Reicofil® 3

Processing Conditions

Average extruder temperature range may be kept between 240 - 260°C.

Food Regulation

This product is defined as a preparation under specific food contact regulation. Detailed information will be provided in a relevant document "Regulatory Compliances Product Declaration" upon request.

Storage and Handling

Polypropylene resin should be stored to prevent a direct exposure to sunlight and heat. The Product estimated shelf life is one year starting from production date, adequate humidity below 80%, and temperature below 40°C. Customers might not fully follow the optimal storage condition, hence the shelf life recommended at customer site is six months only as received. Please refer to "**Material Safety Datasheet**" (MSDS) for handling and storage information.

Teldene® H06ML

LyondellBasell licensed Spheripol Process

POLYPROPYLENE HOMOPOLYMER

Technical Data Sheet

Typical Applications

- Used for the production of consumer goods such as food containers, house wares, toys and garden furniture
- Components for appliances and parts for the automotive industry

Key Characteristics

- Good flow properties, High Stiffness, easy processing
- Food contact approval for specific applications (*refer to* ***NATPET***)

Processing Methods

- Injection Molding

Resin	*Conditions*	*Method*	*Value*	*Unit*
Density	23°C	ISO 1183	*0.900*	g/cm^3
Melt Flow Rate (MFR)	230°C/2.16 kg	ASTM D 1238-13	*6*	g/10-min
Mechanical				
Flexural Modulus		ISO 178	*1,500*	MPa
Tensile Stress at Break	50-mm/min	ISO 527	*24*	MPa
Tensile Stress at Yield	50-mm/min	ISO 527	*34*	MPa
Tensile Strain at Break	50-mm/min	ISO 527	*> 50*	%
Tensile Strain at Yield	50-mm/min	ISO 527	*13*	%
Izod $_{Notched}$	23°C	ISO 180	*4.4*	kJ/m^2
Thermal				
Heat Deflection Temperature	0.45 MPa Un-annealed	ISO 75B	*115*	°C
Vicat Softening Temperature	A50 (50°C/h 10N)	ISO 306	*155*	°C

Technical information

Note: The above are typical data representing the product; not to be construed as analysis certificate or specifications.

Teldene® H06ML

LyondellBasell licensed Spheripol Process

POLYPROPYLENE HOMOPOLYMER

Technical Data Sheet

Special Features

Shows broad processing window while providing good mechanical properties

Processing Conditions

Average extruder temperature range may be kept between 240 - 260°C.

Food Regulation

This product is defined as a preparation under specific food contact regulation. Detailed information will be provided in a relevant document "Regulatory Compliances Product Declaration" upon request.

Storage and Handling

Polypropylene resin should be stored to prevent a direct exposure to sunlight and heat. The Product estimated shelf life is one year starting from production date, adequate humidity below 80%, and temperature below 40°C. Customers might not fully follow the optimal storage condition, hence the shelf life recommended at customer site is six months only as received. Please refer to "**Material Safety Datasheet**" (MSDS) for handling and storage information.

POLYPROPYLENE

FY2011E

Polypropylene Homopolymer for Yarn/Raffia

Description

FY2011E is a polypropylene homopolymer intended for yarn extrusion. Yarn made from this resin exhibits excellent mechanical properties.

Applications

- Yarn/raffia
- Thermoforming

Resin Properties	Unit	Test Method	Typical Value
MFR (230ºC/2.16Kg)	g/10min	ASTM D1238	2.2
Density	g/cm^3	ASTM D792 Method A	0.9
Mechanical Properties*			
Tensile Strength at Yield	MPa	ASTM D638	33
Tensile Elongation at Yield	%	ASTM D638	9.0
Tensile Strength at Break	MPa	ASTM D638	19
Tensile Elongation at Break	%	ASTM D638	155
Flexural Modulus	MPa	ASTM D790	1300
Flexural Strength	MPa	ASTM D790	34
Izod Impact, Notched 23deg.C	kJ/m^2	ASTM D256	3.0
Rockwell Hardness		ASTM D785	98
Thermal Properties*			
Vicat Softening Temperature @10N	ºC	ASTM D1525	152

*Test specimen preparation Method: Pursuant to ASTM D4101

Processing conditions: Recommended Extrusion Temperature: 230-260 ºC

Stretching Temperature: 140-160 °C

Stretching Ratio: 4 – 6

Storage and handling: FY2011E should be stored in a dry cool place with adequate ventilation and protected from UV-light at temperature below 50 ºC. It is advisable to process polypropylene resins within 6 months after delivery.

Teldene® H03BPM

LyondellBasell licensed Spheripol Process

POLYPROPYLENE HOMOPOLYMER

Technical Data Sheet

Typical Applications

- BOPP films produced at very high speed for packaging
- Used for metallizable film, both as monolayer and in co-extruded structure
- Engaged for the production of solid phase thermoforming
- Suitable for raffia application and automotive compounding

Key Characteristics

- Easy processing, good optical characteristics
- Does not contain any slip or anti-blocking agents
- Calcium stearate free
- Low water carry-over (LWCO)
- Very good film profile
- Food contact approval for specific applications (refer to ***NATPET***)

Processing Methods

- Extrusion and Co-Extrusion
- Thermoforming

Resin	*Conditions*	*Method*	*Value*	*Unit*
Density	23°C	ISO 1183	*0.900*	g/cm^3
Melt Flow Rate (MFR)	230°C/2.16 kg	ASTM D 1238-13	*3.0*	g/10-min
Mechanical				
Flexural Modulus		ISO 178	*1,500*	MPa
Tensile Modulus	1-mm/min	ISO 527	*1,450*	MPa
Tensile Stress at Break	50-mm/min	ISO 527	*23*	MPa
Tensile Stress at Yield	50-mm/min	ISO 527	*35*	MPa
Tensile Strain at Break	50-mm/min	ISO 527	*> 50*	%
Tensile Strain at Yield	50-mm/min	ISO 527	*12*	%
Izod Notched	23°C	ISO 180	*5.9*	kJ/m^2
Thermal				
Heat Deflection Temperature	0.45 MPa Un-annealed	ISO 75B	*85*	°C
Vicat Softening Temperature	A50 (50°C/h 10N)	ISO 306	*156*	°C
Optical				
Haze	20µm	ASTM D 1003	*0.7*	%

Technical information

Note: The above are typical data representing the product; not to be construed as analysis certificate or specifications.

Teldene® H03BPM

LyondellBasell licensed Spheripol Process

POLYPROPYLENE HOMOPOLYMER

Technical Data Sheet

Special Features

- **Biaxially oriented polypropylene (BOPP)**
  - Tested on Brückner Maschinebau GmbH BOPP machine
  - Reached 0.8% haze
  - Recommended for high speed BOPP machines
- **Raffia**
  - Tested on Starlinger machine Starex 1500ES
  - Recommended for high speed Raffia machines
- Shows broad processing window while providing good mechanical properties

Processing Conditions

Average extruder temperature range may be kept between 240 - 260°C.

Food Regulation

This product is defined as a preparation under specific food contact regulation. Detailed information will be provided in a relevant document "Regulatory Compliances Product Declaration" upon request.

Storage and Handling

Polypropylene resin should be stored to prevent a direct exposure to sunlight and heat. The Product estimated shelf life is one year starting from production date, adequate humidity below 80%, and temperature below 40°C. Customers might not fully follow the optimal storage condition, hence the shelf life recommended at customer site is six months only as received. Please refer to "**Material Safety Datasheet**" (MSDS) for handling and storage information.

TECHNICAL DATASHEET

PP H1030

PRODUCT DESCRIPTION

PP H1030 is a Polypropylene Homopolymer with a Melt Flow Rate (MFR) of 3 g/10min.

TRPICAL APPLICATION

PP H1030 is designed for stretch tape from water bath and chill roll, offering low water-carry-over and low shrinkage. Its good mechanical properties and compliance to food contact regulations allow it to be used in various applications. Typical applications for tape made with our polypropylene grade are: carpet backing, cement bags, woven bags, geo-textile, bulk handling & packaging as jumbo bags & ropes.

TYPICAL DATA

Physical	Method	Unit	Value
Melt Flow Rate (230°C/2.16 kg)	ISO 1133	g/10min	3
Melting Temperature	ISO 3146	°C	163
Vicat Softening Temperature	ISO 306	°C	152
Heat Distortion Temperature @ 455 KPa	ISO 75-2	°C	102
Density	ISO 1183	g/cm^3	0.9

Mechanical	Method	Unit	Value
Tensile Strength @ Yield	ISO 527-2	MPa	33
Tensile Elongation @ Yield	ISO 527-2	%	10
Flexural Modulus (1% Secant)	ISO 178	MPa	1450
Izod Impact Strength (Notched) at 23 °C	ISO 180-1A	J/m	32
Rockwell Hardness	ISO 2039-2	R	100

Typical Processing Conditions*

Extrusion Temperatures : 220 ~ 265 °C
Water Bath Temperature : 35 ~ 45 °C
Orientation Temperatures
Hot plate : 100 ~ 140 °C
Hot rolls : 100 ~ 140 °C
Oven air : 140 ~ 160 °C
Draw Ratio : 5 ~ 7

TECHNICAL DATASHEET

PP 500P

PRODUCT DESCRIPTION

PP 500P is a medium flow, multipurpose grade for extrusion and injection moulding applications.

TRPICAL APPLICATION

If applied for extrusion this grade shows an excellent stretch ability and is therefore suitable for tapes and strapping, high tenacity yarns and carpet backing. For thermoforming it shows a unique balance between transparency, impact resistance and thickness uniformity. PP 500P is suitable for production of injection moulded articles e.g. caps and closures and house ware products, where this grade shows a high stiffness, combined with a fair impact resistance and very good surface hardness.

TYPICAL DATA

Properties	Unit (Si)	Values	Test methods
Polymer properties			
Melt flow rate (MFR)			ISO 1133
at 230 °C and 2.16 kg	g/10 min	**3.1**	
Density	kg/m³	**905**	ISO 1183
Molecular Weight Distribution	-	**Broad**	
Isotacticity	-	**Medium**	
Formulation			
Anti block agent	-	**No**	
Slip agent	-	**No**	
Anti static agent	-	**No**	
Nucleating agent	-	**No**	
Gas fading stabilized	-	**No**	
Mechanical properties			
Tensile test			ISO 527
stress at yield	MPa	**41**	
stress at break	MPa	**36**	
strain at break	%	**600**	
Flexural test			ASTM D 790
Flexural modulus	MPa	**1550**	
Thermal properties			
Vicat softening temperature			
at 10 N (VST/A)	°C	**153**	ISO 306/A
at 50 N (VST/B)	°C	**79**	ISO 306/B

TECHNICAL DATASHEET

PP H1045

PRODUCT DESCRIPTION

PP H1045 is a Polypropylene Homopolymer with a Melt Flow Rate (MFR) of 4.5 g/10min.
PP H1045 is designed for high extrusion speed lines to make stretch tapes, offering low watercarry-over and low shrinkage. Good balance of strength, shrinkage, splitting tendency. It is compliant

TRPICAL APPLICATION

Weaving tapes for carpet backing, geo-textiles, woven bags and industrial and sport fabrics propagation and slow crack growth.

TYPICAL DATA

Physical	Method	Unit	Value
Melt Flow Rate (230°C/2.16 kg)	ISO 1133	g/10min	4.5
Melting Temperature	ISO 11357-3	°C	163
Vicat Softening Temperature	ISO 306	°C	152
Heat Distortion Temperature @ 0.45 MPa	ISO 75-2	°C	85
Density	ISO 1183	g/cm³	0.9

Mechanical	Method	Unit	Value
Tensile Strength @ Yield	ISO 527-2	MPa	34
Tensile Elongation @ Yield	ISO 527-2	%	9
Flexural Modulus (1% Secant)	ISO 178	MPa	1500
Charpy Impact Strength (Notched) at 23 °C	ISO 179/1eA	KJ/m²	3.5
Rockwell Hardness	ISO 2039-2	R	100

Typical Processing Conditions		
Extrusion Temperatures		200 ~ 260 °C
Water Bath Temperature		15 ~ 40 °C
Orientation Temperatures	Hot plate	100 ~ 140 °C
	Hot rolls	100 ~ 140 °C
	Oven air	140 ~ 180 °C
Draw Ratio		1:6 to 1:8
Annealing Temperature		150 ~ 170 °C

NOTE Processing parameters should only be used as guidelines. The above properties values are not to be construed as specifications.

TECHNICAL DATASHEET

PP 575P

PRODUCT DESCRIPTION

PP 575P is specially developed for producing rigid injection molding articles for general purpose applications. It gives consistent processability and high gloss in the products.

TRPICAL APPLICATION

PP 575P can be used mainly for houseware articles, caps, closures, containers and toys.

TYPICAL DATA

Properties	Unit	Value (1)	ASTM Method
Resin Properties			
Melt Flow Rate @ 230°C & 2.16 kg load	g/10 min.	11	D 1238
Density @ 23°C	kg/m^3	905	D 792
Mechanical Properties (2)			
Tensile Strength @ Yield	MPa	35	D 638
Tensile Elongation @ Yield	%	11	D 638
Flexural Modulus (1% Secant)	MPa	1600	D 790A
Notched Izod Impact Strength @ 23°C	J/m	22	D 256
Rockwell Hardness, R-Scale	-	104	D 785
Thermal Properties(2)			
Vicat Softening Point	°C	153	D 1525B
Heat Deflection Temperature @ 455 KPa	°C	98	D 648

TECHNICAL DATASHEET

PP H4120

PRODUCT DESCRIPTION

PP H4120 is a Polypropylene Homopolymer with a Melt Flow Rate (MFR) of 12 g/10min. PP H4120 has good gloss, excellent flow and good mechanical properties.

TRPICAL APPLICATION

PP H4120 is intended for injection molding for packaging containers, toys, domestic appliances, garden furniture, caps, closures, boxes and household articles.

TYPICAL DATA

Physical	Method	Unit	Value
Melt Flow Rate (230°C/2.16 kg)	ISO 1133	g/10min	12
Melting Temperature	ISO 11357-3	°C	163
Vicat Softening Temperature	ISO 306	°C	152
Heat Distortion Temperature @ 0.45 MPa	ISO 75-2	°C	102
Density	ISO 1183	g/cm³	0.9

Mechanical	Method	Unit	Value
Tensile Strength @ Yield	ISO 527-2	MPa	33
Tensile Elongation @ Yield	ISO 527-2	%	10
Flexural Modulus (1% Secant)	ISO 178	MPa	1400
Charpy Impact Strength (Notched) at 23 °C	ISO 179/1eA	KJ/m²	3.0
Rockwell Hardness	ISO 2039-2	R	100

Typical Processing Conditions	
Melt Temperature	210 – 260 °C
Mold Temperature	20 – 45 °C
Shrinkage	1 – 2% depending on wall thickness and molding conditions

NOTE Processing parameters should only be used as guidelines. The above properties values are not to be construed as specifications.

TECHNICAL DATASHEET

PP H2250

PRODUCT DESCRIPTION

PP H2250 is a Polypropylene Homopolymer with a Melt Flow Rate (MFR) of 25 g/10min. PP H2250 is a medium narrow molecular weight distribution with anti-gas fading stabilization. It is intended for the extrusion of fine fibers with the spunbond technology for non-woven applications. It is also suitable for the extrusion of bulk continuous filament (BCF) for carpet pile and continuous filament (CF) yarns.

TRPICAL APPLICATION

TASNEE PP H2250 is used for Spunbond non-woven applications and also suitable for BCF/CF yarns. It is also utilized for coating applications as well as general purpose injection molding grade for thin wall applications.
TYPICAL PROPERTIES

TYPICAL DATA

Physical	Method	Unit	Value
Melt Flow Rate (230°C/2.16 kg)	ISO 1133	g/10min	25
Melting Temperature	ISO 11357-3	°C	163
Vicat Softening Temperature	ISO 306	°C	152
Heat Distortion Temperature @ 0.45 MPa	ISO 75-2	°C	102
Density	ISO 1183	g/cm³	0.9
Mechanical	**Method**	**Unit**	**Value**
Tensile Strength @ Yield	ISO 527-2	MPa	33
Tensile Elongation @ Yield	ISO 527-2	%	10
Flexural Modulus (1% Secant)	ISO 178	MPa	1450
Charpy Impact Strength (Notched) at 23° C	ISO 179/1eA	KJ/m²	3.0
Rockwell Hardness	ISO 2039-2	R	95
BCF Processing Conditions			
Extrusion Temperatures	210 – 240° C		
Rolls Temperature	80 – 120° C		
Draw Ratio	2.8 – 3.3		
Quenching Temperature	10 – 20° C		
Texturising Temperature	150 – 170° C		

NOTE Processing parameters should only be used as guidelines. The above properties values are not to be construed as specifications.

TECHNICAL DATASHEET

H3030

PRODUCT DESCRIPTION

PP H3030 is a Polypropylene Homopolymer with a Melt Flow Rate (MFR) of 3.0 g/10min.

PP H3030 is designed for Bi-axial Oriented Polypropylene (BOPP) film applications, offering excellent transparency and gloss, high stiffness and excellent processability. PP H3030 is formulated to be used for both general purpose and metallized films.

TRPICAL APPLICATION

Films produced with PP H3030 are suitable for various printing, lamination and coating processes for food and non-food packaging applications. Food packaging: biscuits, chocolates, confectionaries, chips, baked foods, pasta, snack foods, pet foods etc. Non-food packaging: soaps, detergents, textile bags, self-adhesive tapes, wrap around, self-adhesive labels etc.

TYPICAL DATA

Physical	Method	Unit	Value
Melt Flow Rate (230°C/2.16 kg)	ISO 1133	g/10min	3.0
Melting Temperature	ISO 11357-3	°C	163
Vicat Softening Temperature	ISO 306	°C	154
Heat Distortion Temperature @ 0.45 MPa	ISO 75-2	°C	102
Density	ISO 1183	g/cm³	0.9

Mechanical	Method	Unit	Value
Tensile Strength @ Yield	ISO 527-2	MPa	33
Tensile Elongation @ Yield	ISO 527-2	%	10
Flexural Modulus (1% Secant)	ISO 178	MPa	1450
Charpy Impact Strength (Notched) at 23° C	ISO 179/1eA	KJ/m²	4.0
Rockwell Hardness	ISO 2039-2	R	100

Typical Processing Conditions	
Extrusion Temperature	200 ~ 250° C
Chill Roll Temperature	20 ~ 40° C
MD Stretching Temperature	130 - 160° C
MD Stretching Ratio	4 ~ 7
TD Stretching Temperature	155 - 170° C
TD Stretching Ratio	7 ~ 10

NOTE Processing parameters should only be used as guidelines. The above properties values are not to be construed as specifications.

TECHNICAL DATASHEET

QR6701K

PRODUCT DESCRIPTION

Provisional - PP random co-polymer for Injection moulding QR6701K is specially developed for producing injection molded & ISBM articles with very high clarity at low processing temperatures and also has better impact properties than homo PP counterparts. This grade contains advance clarifier & anti-static agent.

TRPICAL APPLICATION

QR6701K can be used for clear houseware & packaging items, appliances, caps & closures, lids and bottles (ISBM).

TYPICAL DATA

Properties	Unit	Value (1)	ASTM Method
Resin Properties			
Melt Flow Rate @ 230°C & 2.16 kg load	g/10 min.	3	D 1238
Density @ 23°C	kg/m^3	905	D 792
Mechanical Properties (2)			
Tensile Strength @ Yield	MPa	45	D 638
Tensile Elongation @ Yield	%	10	D 638
Flexural Modulus (1% Secant)	MPa	1600	D 790A
		1850	D 790B
Notched Izod Impact Strength @ 23°C	J/m	35	D 256
Rockwell Hardness, R-Scale	-	102	D 785
Thermal Properties(2)			
Vicat Softening Point	°C	150	D 1525B
Heat Deflection Temperature @ 455 KPa	°C	120	D 648

Teldene® H11BF

LyondellBasell licensed Spheripol Process

POLYPROPYLENE HOMOPOLYMER

Technical Data Sheet

Typical Applications

- Food packaging film
- Textile packaging film
- Potential end user applications include packaging for hosiery, shirts, other textile and shopping bags
- Especially suitable for Water Quenched Tubular film (IPP)

Key Characteristics

- Excellent anti-blocking properties
- High clarity
- Good processability
- Good stiffness
- High slip
- Food contact approval for specific applications (*refer to* ***NATPET***)

Processing Methods

- Blown film
- Injection molding

Resin	*Conditions*	*Method*	*Value*	*Unit*
Density	23°C	ISO 1183	*0.900*	g/cm^3
Melt Flow Rate (MFR)	230°C/2.16 kg	ASTM D 1238-13	*11*	g/10-min
Mechanical				
Flexural Modulus		ISO 178	*1,450*	MPa
Tensile Stress at Yield	50-mm/min	ISO 527	*35*	MPa
Tensile Strain at Yield	50-mm/min	ISO 527	*10*	%
Izod $_{Notched}$	23°C	ISO 180	*2.5*	kJ/m^2
Thermal				
Heat Deflection Temperature	0.45 MPa Un-annealed	ISO 75B	*94*	°C
Vicat Softening Temperature	A50 (50°C/h 10N)	ISO 306	*155*	°C

Technical information

Note: The above are typical data representing the product; not to be construed as analysis certificate or specifications.

Teldene® H11BF

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POLYPROPYLENE HOMOPOLYMER

Technical Data Sheet

Special Features

Shows broad processing window while providing good mechanical properties

Processing Conditions

Average extruder temperature range may be kept between 220 - 230°C. Quench temperature 33°C

Food Regulation

This product is defined as a preparation under specific food contact regulation. Detailed information will be provided in a relevant document "Regulatory Compliances Product Declaration" upon request.

Storage and Handling

Polypropylene resin should be stored to prevent a direct exposure to sunlight and heat. The Product estimated shelf life is one year starting from production date, adequate humidity below 80%, and temperature below 40°C. Customers might not fully follow the optimal storage condition, hence the shelf life recommended at customer site is six months only as received. Please refer to "**Material Safety Datasheet**" (MSDS) for handling and storage information.