Moplen EP300R

Polypropylene, Impact Copolymer

Product Description

Moplen EP300R is a polypropylene impact copolymer. This grade is known for having an optmized balance of stiffness and toughness. Potential applications include injection molding of washing machine tubs, electrical appliance parts, thin wall packaging and housewares.

Product Characteristics

Status	Commercial: Active
Test Method used	ASTM
Availability	Asia-Pacific, Australia/NZ, Africa-Middle East
Processing Method	Injection Molding
Features	Impact Copolymer, Good Impact Resistance , Good Processability, Good Toughness
Typical Customer Applications	Housewares, TWIM Food Containers, TWIM Non-food Containers

Typical Properties	Method	Value	Unit
Physical			
Density -Specific Gravity	ASTM D 792	0.9	g/cm³
Melt flow rate (230°C/2.16kg)	ASTM D 1238	30	g/10 min
Note: ASTM D1238L			
Mechanical			
Tensile Strength @ Yield	ASTM D 638	240	kg/cm²
Flexural Modulus	ASTM D 790	10500	kg/cm²
Tensile Elongation @ Yld	ASTM D 638	5	%
Impact			
Notched izod impact	ASTM D 256		
(23 °C)		13	kg-cm/cm
(-20 °C)		5	kg-cm/cm
Hardness			
Rockwell Hardness (R Scale)	ASTM D 785	85	
Thermal			
Vicat softening point	ASTM D 1525	150	°C

Notes

Typical properties; not to be construed as specifications.

LyondellBasell markets this product through the following entities:

- Equistar Chemicals, LP
- Basell Sales & Marketing Company B.V.

- Basell Asia Pacific Limited
- Basell International Trading FZE
- LyondellBasell Australia Pty Ltd

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Users should review the applicable Material Safety Data Sheet before handling the product.

Release Date: 02 Mar 2011

Moplen EP332K

Polypropylene, Impact Copolymer

Product Description

Moplen EP332K is a polypropylene impact copolymer. This grade is known for having an optimized balance of stiffness and toughness with good thermal ageing stability. Potential applications include injection molding of appliances housings, toys, crates and general housewares.

Product Characteristics

Status	Commercial: Active
Test Method used	ASTM
Availability	Asia-Pacific, Australia/NZ, Africa-Middle East
Processing Method	Injection Molding
Features	Impact Copolymer, Good Heat Aging Resistance , Good Impact Resistance , Good Toughness, High Stiffness
Typical Customer Applications	Crates, Sports, Leisure and Toys, Housewares, Small Appliances, Opaque Containers

Typical Properties	Method	Value	Unit
Physical			
Density -Specific Gravity	ASTM D 792	0.9	g/cm³
Melt flow rate (230°C/2.16kg)	ASTM D 1238	5	g/10 min
Note: ASTM D1238L			
Mechanical			
Tensile Strength @ Yield	ASTM D 638	250	kg/cm²
Flexural Modulus	ASTM D 790	11500	kg/cm²
Tensile Elongation @ Yld	ASTM D 638	9	%
Impact			
Notched izod impact (23 °C)	ASTM D 256	15	kg-cm/cm
Thermal			
Heat deflection temperature at 0.46 N/mm2	ASTM D 648	88	°C

Notes

Typical properties; not to be construed as specifications.

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Release Date: 27 Oct 2010

Moplen EP332L

Polypropylene, Impact Copolymer

Product Description

Moplen EP332L is a heterophasic copolymer and is formulated with a highly effective heat stabilisation package. It exhibits a good fluidity combined with a good balance of impact and stiffness as well as a low warpage tendency.
Moplen EP332L is applied in injection moulding applications requiring a good resistance to long term heat exposure, in particular for battery cases and automotive components.
Moplen EP332L is suitable for food contact. It is not intended for medical and pharmaceutical applications.

Product Characteristics

Status	Commercial: Active
Test Method used	ISO
Availability	Europe, Asia-Pacific, Australia/NZ, Africa-Middle East, Latin America
Processing Method	Injection Molding
Features	Impact Copolymer, Medium Flow, Good Heat Aging Resistance , Heat Stabilized, Good Impact Resistance , Good Stiffness , Low Warpage
Typical Customer Applications	Battery Cases

Typical Properties	Method	Value	Unit
Physical			
Density	ISO 1183	0.9	g/cm³
Melt flow rate (MFR) (230 °C/ 2.16 kg)	ISO 1133	7	g/10 min
Melt volume flow rate (230 °C/ 2.16 kg)	ISO 1133	9.5	cm³/10min
Mechanical			
Tensile Modulus	ISO 527-1, -2	1200	MPa
Tensile Stress at Yield	ISO 527-1, -2	26	MPa
Tensile Strain at Break	ISO 527-1, -2	50	%
Tensile Strain at Yield	ISO 527-1, -2	8	%
Impact			
Charpy unnotched impact strength	ISO 179		
(23 °C, Type 1, Edgewise)		No Break	
(0 °C, Type 1, Edgewise)		140	kJ/m²
(-20 °C, Type 1, Edgewise)		80	kJ/m²
Charpy notched impact strength	ISO 179		
(23 °C, Type 1, Edgewise, Notch A)		7.5	kJ/m²
(0 °C, Type 1, Edgewise, Notch A)		4.5	kJ/m²
(-20 °C, Type 1, Edgewise, Notch A)		3.5	kJ/m²
Hardness			
Ball indentation hardness (H 358/30)	ISO 2039-1	53	MPa
Thermal			

Heat deflection temperature B (0.45 MPa) Unannealed	ISO 75B-1, -2	70	°C
Vicat softening temperature	ISO 306		
(A50 (50 °C/h 10 N))		148	°C
(B50 (50 °C/h 50 N))		67	°C

Notes

Typical properties; not to be construed as specifications.

Further Information

Conveying: Conveying equipment should be designed to prevent production and accumulation of fines and dust particles that are contained in polymer resins. These particles can under certain conditions pose an explosion hazard. We recommend the conveying system used is equipped with adequate filters, is operated and maintained that no leak develops and adequate grounding exists at all times.

Health and Safety:
The resin is manufactured to the highest standards but, special requirements apply to certain applications such as food end-use contact and direct medical use. For specific information on regulatory compliance contact your local representative.

Workers should be protected from the possibility of skin or eye contact with molten polymer. Safety glasses are suggested as a minimal precaution to prevent mechanical or thermal injury to the eyes.

Molten polymer may be degraded if it is exposed to air during any of the processing and off-line operations. The products of degradation have an unpleasant odour. In higher concentrations they may cause irritation of the mucus membranes. Fabrication areas should be ventilated to carry away fumes or vapours. Legislation on the control of emissions and pollution prevention must be observed. If the principles of sound manufacturing practice are adhered to and the place of work is well ventilated, no health hazards are involved in processing the resin.

The resin will burn when supplied with excess heat and oxygen. It should be handled and stored away from contact with direct flames and/or ignition sources. In burning the resin contributes high heat and may generate a dense black smoke. Starting fires can be extinguished by water, developped fires should be extinguished by heavy foams forming an aqueous or polymeric film. For further information about safety in handling and processing please refer to the Material Safety Data Sheet.

Storage:
The resin is packed in 25 kg bags or in bulk containers protecting it from contamination. If it is stored under adverse conditions, i. e. if there are large fluctuations in ambient temperature and the atmospheric humidity is high, moisture may condense inside the packaging. Under these circumstances, it is recommended to dry the resin before use. Unfavourable storage conditions may also intensify the resin´s slight characteristic odour.

The resin is subjected to degradation by ultra-violet radiations or by high storage temperatures. Therefore the resin must be protected from direct sunlight, temperatures above 40 °C and high atmospheric humidity during storage. The resin can be stored over a period of more than 6 month without significant changes in the specified properties, appropriate storage conditions provided. Higher storage temperatures reduce the storage time.

The information submitted is based on our current knowledge and experience. In view of the many factors that may affect processing and application, these data do not relieve processors of the responsibility of carrying out their own tests and experiments; neither do they imply any legally binding assurance of certain properties or of suitability for a specific purpose. The data do not relieve the customer from his obligation to control the resin upon arrival and to complain about faults. It is the responsibility of those to whom we supply our products to ensure that any proprietary rights and existing laws and legislation are observed.

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Users should review the applicable Material Safety Data Sheet before handling the product.

Release Date: 06 Jun 2012

Moplen EP548P

Polypropylene, Impact Copolymer

Product Description

Moplen EP548P is a nucleated heterophasic copolymer, suitable for injection moulding applications, and contains an anti-static agent.
It exhibits a high stiffness combined with a medium fluidity.

Moplen EP548P is extensively used in houseware, furniture, cylindrical containers and crates.

Product Characteristics

Status	Commercial: Active
Test Method used	ISO
Availability	Europe, Africa-Middle East
Processing Method	Injection Molding
Features	Antistatic, Impact Copolymer, Medium Flow, Nucleated, Good Stiffness
Typical Customer Applications	Crates, Furniture, Housewares, Opaque Containers

Typical Properties	Method	Value	Unit
Physical			
Density	ISO 1183	0.9	g/cm³
Melt flow rate (MFR) (230°C/2.16Kg)	ISO 1133	16	g/10 min
Melt volume flow rate (230°C/2.16Kg)	ISO 1133	22	cm³/10min
Mechanical			
Tensile Modulus	ISO 527-1, -2	1550	MPa
Tensile Stress at Yield	ISO 527-1, -2	28	MPa
Tensile Strain at Break	ISO 527-1, -2	> 50	%
Tensile Strain at Yield	ISO 527-1, -2	5	%
Impact			
Charpy unnotched impact strength	ISO 179		
(23 °C, Type 1, Edgewise)		No Break	kJ/m²
(0 °C, Type 1, Edgewise)		135	kJ/m²
(-20 °C, Type 1, Edgewise)		90	kJ/m²
Charpy notched impact strength	ISO 179		
(23 °C, Type 1, Edgewise, Notch A)		8	kJ/m²
(0 °C, Type 1, Edgewise, Notch A)		4	kJ/m²
(-20 °C, Type 1, Edgewise, Notch A)		3	kJ/m²
Ductile/Brittle transition temperature	ISO 6603-2	-45	°C
Hardness			
Ball indentation hardness (H 358/30)	ISO 2039-1	69	MPa
Thermal			
Heat deflection temperature B (0.45 MPa) Unannealed	ISO 75B-1, -2	100	°C
Vicat softening temperature	ISO 306		

(A50 (50°C/h 10N))	147	°C
(B50 (50°C/h 50N))	70	°C

Notes

Typical properties; not to be construed as specifications.

Further Information

Moplen EP548P

Conveying: Conveying equipment should be designed to prevent production and accumulation of fines and dust particles that are contained in polymer resins. These particles can under certain conditions pose an explosion hazard. We recommend the conveying system used is equipped with adequate filters, is operated and maintained that no leak develops and adequate grounding exists at all times.

Health and Safety: The resin is manufactured to the highest standards but, special requirements apply to certain applications such as food end-use contact and direct medical use. For specific information on regulatory compliance contact your local representative.

Workers should be protected from the possibility of skin or eye contact with molten polymer. Safety glasses are suggested as a minimal precaution to prevent mechanical or thermal injury to the eyes.

Molten polymer may be degraded if it is exposed to air during any of the processing and off-line operations. The products of degradation have an unpleasant odour. In higher concentrations they may cause irritation of the mucus membranes. Fabrication areas should be ventilated to carry away fumes or vapours. Legislation on the control of emissions and pollution prevention must be observed. If the principles of sound manufacturing practice are adhered to and the place of work is well ventilated, no health hazards are involved in processing the resin.

The resin will burn when supplied with excess heat and oxygen. It should be handled and stored away from contact with direct flames and/or ignition sources. In burning the resin contributes high heat and may generate a dense black smoke. Starting fires can be extinguished by water, developped fires should be extinguished by heavy foams forming an aqueous or polymeric film. For further information about safety in handling and processing please refer to the Material Safety Data Sheet.

Storage:
The resin is packed in 25 kg bags or in bulk containers protecting it from contamination. If it is stored under adverse conditions, i. e. if there are large fluctuations in ambient temperature and the atmospheric humidity is high, moisture may condense inside the packaging. Under these circumstances, it is recommended to dry the resin before use. Unfavourable storage conditions may also intensify the resin´s slight characteristic odour.

The resin is subjected to degradation by ultra-violet radiations or by high storage temperatures. Therefore the resin must be protected from direct sunlight, temperatures above 40°C and high atmospheric humidity during storage. The resin can be stored over a period of more than 6 month without significant changes in the specified properties, appropriate storage conditions provided. Higher storage temperatures reduce the storage time.

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Release Date: 02 Mar 2009

Moplen EP548R

Polypropylene, Impact Copolymer

Product Description

Moplen EP548R is a nucleated heterophasic copolymer with antistatic agent used for injection moulding applications.
It exhibits a excellent stiffness / impact balance combined with a medium fluidity.

Moplen EP548R is applied in toys, furniture and thin-walled injection moulding items.

Moplen EP548R is suitable for food contact.

Product Characteristics

Status	Commercial: Active
Test Method used	ISO
Availability	Europe, Africa-Middle East
Processing Method	Injection Molding
Features	Antistatic, Medium Flow, Good Impact Resistance , Nucleated, Good Stiffness
Typical Customer Applications	Furniture, Sports, Leisure and Toys, Housewares, Opaque Containers

Typical Properties	Method	Value	Unit
Physical			
Density	ISO 1183	0.9	g/cm³
Melt flow rate (MFR) (230°C/2.16kg)	ISO 1133	21	g/10 min
Melt volume flow rate (230°C/2.16kg)	ISO 1133	28	cm³/10min
Mechanical			
Tensile Modulus	ISO 527-1, -2	1550	MPa
Tensile Stress at Yield	ISO 527-1, -2	27	MPa
Tensile Strain at Break	ISO 527-1, -2	>50	%
Tensile Strain at Yield	ISO 527-1, -2	5	%
Impact			
Charpy unnotched impact strength	ISO 179		
(23 °C, Type 1, Edgewise)		No Break	kJ/m²
(0 °C, Type 1, Edgewise)		125	kJ/m²
(-20 °C, Type 1, Edgewise)		100	kJ/m²
Charpy notched impact strength	ISO 179		
(23 °C, Type 1, Edgewise, Notch A)		6.0	kJ/m²
(0 °C, Type 1, Edgewise, Notch A)		4.5	kJ/m²
(-20 °C, Type 1, Edgewise, Notch A)		4.0	kJ/m²
Ductile/Brittle transition temperature	ISO 6603-2	-60	°C

Notes

Typical properties; not to be construed as specifications.

Further Information

Conveying: Conveying equipment should be designed to prevent production and accumulation of fines and dust particles that are contained in polymer resins. These particles can under certain conditions pose an explosion hazard. We recommend the conveying system used is equipped with adequate filters, is operated and maintained that no leak develops and adequate grounding exists at all times. Health and Safety: The resin is manufactured to the highest standards but, special requirements apply to certain applications such as food end-use contact and direct medical use. For specific information on regulatory compliance contact your local representative. Workers should be protected from the possibility of skin or eye contact with molten polymer. Safety glasses are suggested as a minimal precaution to prevent mechanical or thermal injury to the eyes. Molten polymer may be degraded if it is exposed to air during any of the processing and off-line operations. The products of degradation have an unpleasant odour. In higher concentrations they may cause irritation of the mucus membranes. Fabrication areas should be ventilated to carry away fumes or vapours. Legislation on the control of emissions and pollution prevention must be observed. If the principles of sound manufacturing practice are adhered to and the place of work is well ventilated, no health hazards are involved in processing the resin. The resin will burn when supplied with excess heat and oxygen. It should be handled and stored away from contact with direct flames and/or ignition sources. In burning the resin contributes high heat and may generate a dense black smoke. Starting fires can be extinguished by water, developped fires should be extinguished by heavy foams forming an aqueous or polymeric film. For further information about safety in handling and processing please refer to the Material Safety Data Sheet. Storage: The resin is packed in 25 kg bags or in bulk containers protecting it from contamination. If it is stored under adverse conditions, i. e. if there are large fluctuations in ambient temperature and the atmospheric humidity is high, moisture may condense inside the packaging. Under these circumstances, it is recommended to dry the resin before use. Unfavourable storage conditions may also intensify the resin´s slight characteristic odour. The resin is subjected to degradation by ultra-violet radiations or by high storage temperatures. Therefore the resin must be protected from direct sunlight, temperatures above 40°C and high atmospheric humidity during storage. The resin can be stored over a period of more than 6 month without significant changes in the specified properties, appropriate storage conditions provided. Higher storage temperatures reduce the storage time. The information submitted is based on our current knowledge and experience. In view of the many factors that may affect processing and application, these data do not relieve processors of the responsibility of carrying out their own tests and experiments; neither do they imply any legally binding assurance of certain properties or of suitability for a specific purpose. The data do not relieve the customer from his obligation to control the resin upon arrival and to complain about faults. It is the responsibility of those to whom we supply our products to ensure that any proprietary rights and existing laws and legislation are observed.

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related applications. All references to the U.S. FDA, Health Canada and European Union regulations include another country's equivalent regulatory classification.

Users should review the applicable Material Safety Data Sheet before handling the product.

Release Date: 02 Mar 2011

Moplen EP548S

Polypropylene, Impact Copolymer

Product Description

Moplen EP548S is a nucleated heterophasic copolymer with antistatic agent used for injection moulding applications.
It exhibits an outstanding balance of mechanical properties combined with a medium high fluidity.

Moplen EP548S is extensively used in housewares and in thin-walled containers for food packaging (e.g. margerine tubs, yoghurt pots, etc.).

Moplen EP548S is suitable for food contact.

Product Characteristics

Status	Commercial: Active
Test Method used	ISO
Availability	Europe, Africa-Middle East
Processing Method	Injection Molding
Features	Antistatic, High Flow , Nucleated
Typical Customer Applications	Sports, Leisure and Toys, Housewares, Opaque Containers

Typical Properties	Method	Value	Unit
Physical			
Density	ISO 1183	0.9	g/cm³
Melt flow rate (MFR) (230°C/2.16kg)	ISO 1133	44	g/10 min
Melt volume flow rate (230°C/2.16kg)	ISO 1133	59	cm³/10min
Mechanical			
Tensile Modulus	ISO 527-1, -2	1550	MPa
Tensile Stress at Yield	ISO 527-1, -2	28	MPa
Tensile Strain at Break	ISO 527-1, -2	30	%
Tensile Strain at Yield	ISO 527-1, -2	5	%
Impact			
Charpy unnotched impact strength	ISO 179		
(23 °C, Type 1, Edgewise)		110	kJ/m²
(0 °C, Type 1, Edgewise)		100	kJ/m²
(-20 °C, Type 1, Edgewise)		85	kJ/m²
Charpy notched impact strength	ISO 179		
(23 °C, Type 1, Edgewise, Notch A)		5.0	kJ/m²
(0 °C, Type 1, Edgewise, Notch A)		3.5	kJ/m²
(-20 °C, Type 1, Edgewise, Notch A)		3.0	kJ/m²
Ductile/Brittle transition temperature	ISO 6603-2	-53	°C
Hardness			
Ball indentation hardness (H 358/30)	ISO 2039-1	68	MPa
Thermal			

Heat deflection temperature B (0.45 MPa) Unannealed	ISO 75B-1, -2	95	°C
Vicat softening temperature A/50	ISO 306	151	°C
Vicat softening temperature B/50	ISO 306	80	°C

Notes

Typical properties; not to be construed as specifications.

Further Information

Conveying: Conveying equipment should be designed to prevent production and accumulation of fines and dust particles that are contained in polymer resins. These particles can under certain conditions pose an explosion hazard. We recommend the conveying system used is equipped with adequate filters, is operated and maintained that no leak develops and adequate grounding exists at all times.

Health and Safety:
The resin is manufactured to the highest standards but, special requirements apply to certain applications such as food end-use contact and direct medical use. For specific information on regulatory compliance contact your local representative.

Workers should be protected from the possibility of skin or eye contact with molten polymer. Safety glasses are suggested as a minimal precaution to prevent mechanical or thermal injury to the eyes.

Molten polymer may be degraded if it is exposed to air during any of the processing and off-line operations. The products of degradation have an unpleasant odour. In higher concentrations they may cause irritation of the mucus membranes. Fabrication areas should be ventilated to carry away fumes or vapours. Legislation on the control of emissions and pollution prevention must be observed. If the principles of sound manufacturing practice are adhered to and the place of work is well ventilated, no health hazards are involved in processing the resin.

The resin will burn when supplied with excess heat and oxygen. It should be handled and stored away from contact with direct flames and/or ignition sources. In burning the resin contributes high heat and may generate a dense black smoke. Starting fires can be extinguished by water, developped fires should be extinguished by heavy foams forming an aqueous or polymeric film. For further information about safety in handling and processing please refer to the Material Safety Data Sheet.

Storage:
The resin is packed in 25 kg bags or in bulk containers protecting it from contamination. If it is stored under adverse conditions, i. e. if there are large fluctuations in ambient temperature and the atmospheric humidity is high, moisture may condense inside the packaging. Under these circumstances, it is recommended to dry the resin before use. Unfavourable storage conditions may also intensify the resin´s slight characteristic odour.

The resin is subjected to degradation by ultra-violet radiations or by high storage temperatures. Therefore the resin must be protected from direct sunlight, temperatures above 40 °C and high atmospheric humidity during storage. The resin can be stored over a period of more than 6 month without significant changes in the specified properties, appropriate storage conditions provided. Higher storage temperatures reduce the storage time.

The information submitted is based on our current knowledge and experience. In view of the many factors that may affect processing and application, these data do not relieve processors of the responsibility of carrying out their own tests and experiments; neither do they imply any legally binding assurance of certain properties or of suitability for a specific purpose. The data do not relieve the customer from his obligation to control the resin upon arrival and to complain about faults. It is the responsibility of those to whom we supply our products to ensure that any proprietary rights and existing laws and legislation are observed.

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- Equistar Chemicals, LP
- Basell Sales & Marketing Company B.V.
- Basell Asia Pacific Limited

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- LyondellBasell Australia Pty Ltd

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Users should review the applicable Material Safety Data Sheet before handling the product.

Release Date: 15 Sep 2010

Moplen EP548U

Polypropylene, Impact Copolymer

Product Description

Moplen EP548U is a nucleated heterophasic copolymer with antistatic additivation, suitable for injection moulding applications.
It exhibits an outstanding balance of mechanical properties combined with a very high fluidity.

Moplen EP548U is extensively used in housewares and in thin-walled containers for food packaging (e.g. margerine tubs, yoghurt pots, etc.).

Product Characteristics

Status	Commercial: Active
Test Method used	ISO
Availability	Europe, Africa-Middle East
Processing Method	Injection Molding
Features	Antistatic, Impact Copolymer, High Flow , Nucleated
Typical Customer Applications	Sports, Leisure and Toys, Housewares, Opaque Containers

Typical Properties	Method	Value	Unit
Physical			
Density	ISO 1183	0.9	g/cm³
Melt flow rate (MFR) (230°C/2.16Kg)	ISO 1133	70	g/10 min
Mechanical			
Tensile Modulus	ISO 527-1, -2	1550	MPa
Tensile Stress at Yield	ISO 527-1, -2	28	MPa
Tensile Strain at Break	ISO 527-1, -2	30	%
Tensile Strain at Yield	ISO 527-1, -2	5	%
Impact			
Charpy notched impact strength	ISO 179		
(23 °C, Type 1, Edgewise, Notch A)		5.0	kJ/m²
(0 °C, Type 1, Edgewise, Notch A)		3.5	kJ/m²
(-20 °C, Type 1, Edgewise, Notch A)		3.0	kJ/m²
Ductile/Brittle transition temperature	ISO 6603-2	-53	°C
Hardness			
Ball indentation hardness (H 358/30)	ISO 2039-1	68	MPa
Thermal			
Heat deflection temperature B (0.45 MPa) Unannealed	ISO 75B-1, -2	95	°C
Vicat softening temperature A/50	ISO 306	151	°C
Vicat softening temperature B/50	ISO 306	80	°C

Notes

Typical properties; not to be construed as specifications.

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- Basell Sales & Marketing Company B.V.
- Basell Asia Pacific Limited
- Basell International Trading FZE
- LyondellBasell Australia Pty Ltd

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Release Date: 31 Mar 2009

Moplen HP401R

Polypropylene, Homopolymer

Product Description

Moplen HP401R is a homopolymer suitable for injection moulding applications. It exhibits a high fluidity combined with a good stiffness. Moplen HP401R is suitable for food contact.

Product Characteristics

Status	Commercial: Active
Test Method used	ISO
Availability	Europe, Asia-Pacific, Australia/NZ, Africa-Middle East
Processing Method	Injection Molding
Features	High Flow , Homopolymer, Good Stiffness
Typical Customer Applications	Furniture, Housewares

Typical Properties	Method	Value	Unit
Physical			
Density	ISO 1183	0.905	g/cm³
Melt flow rate (MFR) (230°C/2.16Kg)	ISO 1133	25	g/10 min
Melt volume flow rate (230°C/2.16Kg)	ISO 1133	34	cm³/10min
Mechanical			
Tensile Modulus	ISO 527-1, -2	1350	MPa
Tensile Stress at Yield	ISO 527-1, -2	32	MPa
Tensile Strain at Break	ISO 527-1, -2	> 50	%
Tensile Strain at Yield	ISO 527-1, -2	10	%
Impact			
Charpy unnotched impact strength	ISO 179		
(23 °C, Type 1, Edgewise)		105	kJ/m²
(0 °C, Type 1, Edgewise)		25	kJ/m²
Charpy notched impact strength (23 °C, Type 1, Edgewise, Notch A)	ISO 179	2	kJ/m²
Hardness			
Ball indentation hardness (H 358/30)	ISO 2039-1	70	MPa
Thermal			
Heat deflection temperature B (0.45 MPa) Unannealed	ISO 75B-1, -2	90	°C
Vicat softening temperature	ISO 306		
(B50 (50°C/h 50N))		85	°C
(A50 (50°C/h 10N))		154	°C

Notes

Typical properties; not to be construed as specifications.

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Release Date: 11 Sep 2008

Moplen HP401H

Polypropylene, Homopolymer

Product Description

LyondellBasell Australia's polypropylene grade HP401H is a low flow homopolymer with a conventional molecular weight distribution and is formulated with a general purpose additive package. HP401H is designed principally for the production of sheet for subsequent forming operations into packaging containers. The flow level has been chosen to provide a good balance between hot melt strength during processing and high production rates. Sheet and formed containers produced from HP401H exhibit an attractive balance of rigidity, clarity and impact performance.

Product Characteristics

Status	Commercial: Active
Test Method used	ISO
Availability	Asia-Pacific, Australia/NZ
Features	Homopolymer, Good Impact Resistance , Good Processability, Good Stiffness

Typical Properties	Method	Value	Unit
Physical			
Density (Method D)	ISO 1183	0.90	g/cm³
Melt flow rate (MFR) (230°C/2.16kg)	ISO 1133	2.2	g/10 min
Mechanical			
Tensile Stress at Yield	ISO 527-1, -2	33.0	MPa
Flexural modulus	ISO 178	1400	MPa
Impact			
Notched izod impact strength (+23 °C, Type 1, Notch A)	ISO 180	5.0	kJ/m²
Hardness			
Shore hardness (Shore D)	ISO 868	73	
Thermal			
Heat deflection temperature B (0.45 MPa) Unannealed	ISO 75B-1, -2	82	°C
Heat deflection temperature A (1.80 MPa) Unannealed	ISO 75A-1, -2	51	°C
Vicat softening temperature	ISO 306	155	°C

Notes

Typical properties; not to be construed as specifications.

Further Information

For safety or regulatory compliance information refer to the relevant MSDS or RAPIDS.

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Release Date: 14 Feb 2012

Moplen HP456H

Polypropylene, Homopolymer

Product Description

Moplen HP456H is used in extrusion and thermoforming applications. It is formulated with a low water-carry-over additive package. Typical applications are strapping, monofilaments and tapes. For regulatory information please refer to Moplen HP456H Product Stewardship Bulletin (PSB).

Product Characteristics

Status	Commercial: Active
Test Method used	ISO
Availability	Europe, Asia-Pacific, Australia/NZ, Africa-Middle East, Latin America
Processing Methods	Tapes & Raffia
Features	Homopolymer
Typical Customer Applications	Raffia/Tapes/Strapping

Typical Properties	Method	Value	Unit
Physical			
Melt flow rate (MFR) (230°C/2.16kg)	ISO 1133	1.8	g/10 min
Mechanical			
Tensile Modulus	ISO 527-1, -2	1500	MPa
Tensile Stress at Yield	ISO 527-1, -2	34	MPa
Tensile Strain at Break	ISO 527-1, -2	>50	%
Tensile Strain at Yield	ISO 527-1, -2	11	%
Thermal			
Heat deflection temperature B (0.45 MPa) Unannealed	ISO 75B-1, -2	97	°C
Vicat softening temperature	ISO 306		
(A50 (50°C/h 10N))		154	°C
(B50 (50°C/h 50N))		92	°C

Notes

Typical properties; not to be construed as specifications.

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Users should review the applicable Material Safety Data Sheet before handling the product.

Release Date: 24 May 2013

Moplen HP456J

Polypropylene, Homopolymer

Product Description

Moplen HP456J is used in extrusion and thermoforming applications. It is formulated with a low water-carry-over additive package. Typical applications are monofilaments, ropes and tapes. For regulatory information please refer to Moplen HP456J Product Stewardship Bulletin (PSB).

Product Characteristics

Status	Commercial: Active
Test Method used	ISO
Availability	Europe, Africa-Middle East
Processing Methods	Tapes & Raffia
Features	Homopolymer
Typical Customer Applications	Raffia/Tapes/Strapping

Typical Properties	Method	Value	Unit
Physical			
Melt flow rate (MFR) (230°C/2.16kg)	ISO 1133	3.4	g/10 min
Mechanical			
Tensile Modulus	ISO 527-1, -2	1500	MPa
Tensile Stress at Yield	ISO 527-1, -2	34	MPa
Tensile Strain at Break	ISO 527-1, -2	>50	%
Tensile Strain at Yield	ISO 527-1, -2	10	%
Impact			
Charpy unnotched impact strength (23 °C, Type 1, Edgewise)	ISO 179	190	kJ/m²
Charpy notched impact strength (23 °C, Type 1, Edgewise, Notch A)	ISO 179	4.0	kJ/m²
Hardness			
Ball indentation hardness (H 358/30)	ISO 2039-1	74	MPa
Thermal			
Heat deflection temperature B (0.45 MPa) Unannealed	ISO 75B-1, -2	97	°C
Vicat softening temperature	ISO 306		
(A50 (50°C/h 10N))		154	°C
(B50 (50°C/h 50N))		92	°C

Notes

Typical properties; not to be construed as specifications.

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Release Date: 24 May 2013

Moplen HP462R

Polypropylene, Homopolymer

Product Description

Moplen HP462R is used in extrusion applications. It has a very narrow molecular weight distribution and it is formulated with an anti-gasfading stabilisation package. Moplen HP462R is used in the production of continuous filaments. Typical applications are high-tenacity yarns (HTY) and spunbond nonwovens. For regulatory information please refer to Moplen HP462R Product Stewardship Bulletin (PSB).

Product Characteristics

Status	Commercial: Active
Test Method used	ISO
Availability	Europe, Asia-Pacific, Africa-Middle East
Processing Methods	Continuous Filament/Spinning, Spun Bond
Features	Homopolymer, Narrow Molecular Weight Distribution
Typical Customer Applications	Filament Yarn, Nonwoven Spunbond

Typical Properties	Method	Value	Unit
Physical			
Melt flow rate (MFR) (230°C/2.16kg)	ISO 1133	25	g/10 min
Mechanical			
Tensile Stress at Yield	ISO 527-1, -2	34	MPa
Tensile Strain at Break	ISO 527-1, -2	>50	%
Tensile Strain at Yield	ISO 527-1, -2	10	%
Flexural modulus	ISO 178	1450	MPa
Thermal			
Heat deflection temperature B (0.45 MPa) Unannealed	ISO 75B-1, -2	97	°C
Vicat softening temperature	ISO 306		
(A50 (50°C/h 10N))		151	°C
(B50 (50°C/h 50N))		92	°C

Notes

Typical properties; not to be construed as specifications.

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Release Date: 24 May 2013

Moplen HP462S

Polypropylene, Homopolymer

Product Description

Moplen HP462S is a very narrow Molecular Weight Distribution homopolymer, suitable for extrusion applications. Moplen HP462S is designed for production of continuous filaments. Typical applications are HTY and spunbond nonwoven.

Product Characteristics

Status	Commercial: Active
Test Method used	ISO
Availability	Asia-Pacific, Australia/NZ, Africa-Middle East
Processing Method	Continuous Filament/Spinning
Features	Controlled Rheology, Gas-fading Resistant, Homopolymer, Narrow Molecular Weight Distribution
Typical Customer Applications	Nonwoven Spunbond, Filament Yarn, Furniture & Buildings, Geotextile & Agriculture, Hygiene Nonwoven, Protective Clothes

Typical Properties	Method	Value	Unit
Physical			
Melt flow rate (MFR)	ISO 1133	36	g/10 min
Mechanical			
Tensile Modulus	ISO 527-1, -2	1450	MPa
Tensile Stress at Yield	ISO 527-1, -2	34	MPa
Tensile Strain at Break	ISO 527-1, -2	>50	%
Tensile Strain at Yield	ISO 527-1, -2	8	%
Thermal			
Heat deflection temperature B (0.45 MPa) Unannealed	ISO 75B-1, -2	85	°C
Vicat softening temperature	ISO 306		
(B50 (50°C/h 50N))		90	°C
(A50 (50°C/h 10N))		154	°C

Notes

Typical properties; not to be construed as specifications.

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Release Date: 15 Jan 2012

Moplen HP500N

Polypropylene, Homopolymer

Product Description

Moplen HP500N is a homopolymer used for general purpose injection moulding applications. It exhibits good flow and stiffness.

Moplen HP500N is suitable for food contact.

Product Characteristics

Status	Commercial: Active
Test Method used	ISO
Availability	Europe, Asia-Pacific, Africa-Middle East

Typical Properties	Method	Value	Unit
Physical			
Density	ISO 1183	0.9	g/cm³
Melt flow rate (MFR) (230°C/2.16kg)	ISO 1133	12	g/10 min
Melt volume flow rate (230°C/2.16kg)	ISO 1133	16	cm³/10min
Mechanical			
Tensile Modulus	ISO 527-1, -2	1550	MPa
Tensile Stress at Yield	ISO 527-1, -2	35	MPa
Tensile Strain at Break	ISO 527-1, -2	>50	%
Tensile Strain at Yield	ISO 527-1, -2	10	%
Impact			
Charpy unnotched impact strength	ISO 179		
(23 °C, Type 1, Edgewise)		110	kJ/m²
(0 °C, Type 1, Edgewise)		30	kJ/m²
Charpy notched impact strength (23 °C, Type 1, Edgewise, Notch A)	ISO 179	3	kJ/m²
Thermal			
Heat deflection temperature B (0.45 MPa) Unannealed	ISO 75B-1, -2	95	°C
Vicat softening temperature A/50	ISO 306	153	°C
Vicat softening temperature B/50	ISO 306	85	°C

Notes

Typical properties; not to be construed as specifications.

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Users should review the applicable Material Safety Data Sheet before handling the product.

Release Date: 06 Dec 2010

Moplen HP525J

Polypropylene, Homopolymer

Product Description

Moplen HP525J is a polypropylene homopolymer designed for the production of biaxially oriented polypropylene films (BOPP). 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 it is Calcium Stearate free.
Moplen HP525J offers good optical, easy processing and very good film profile. Typical applications are BOPP packaging films and Solid Phase Thermoforming sheets.

For regulatory information please refer to *Moplen* HP525J Product Stewardship Bulletin (PSB).

Product Characteristics

Status	Commercial: Active
Test Method used	ISO ASTM
Availability	Europe, Africa-Middle East
Processing Methods	BOPP, Extrusion Thermoforming
Features	High Clarity, Medium Flow, High Gloss , Homopolymer, Good Processability
Typical Customer Applications	BOPP, Food Packaging Film, Thermoformed Food Containers

Typical Properties	Method	Value	Unit
Physical			
Density	ISO 1183	0.900	g/cm³
Melt flow rate (MFR) (230°C/2.16Kg)	ISO 1133	3.0	g/10 min
Mechanical			
Tensile Modulus (1 mm/min)	ISO 527-1, -2	1450	MPa
Tensile Stress at Break (50 mm/min)	ISO 527-1, -2	23.0	MPa
Tensile Stress at Yield (50 mm/min)	ISO 527-1, -2	34.0	MPa
Tensile Strain at Break (50 mm/min)	ISO 527-1, -2	>50	%
Tensile Strain at Yield (50 mm/min)	ISO 527-1, -2	11	%
Hardness			
Shore hardness (Shore D)	ISO 868	70	
Thermal			
Heat deflection temperature B (0.45 MPa) Unannealed	ISO 75B-1, -2	85.0	°C
Vicat softening temperature (A50 (50°C/h 10N))	ISO 306	156	°C

Additional Properties

Typical Film Properties of monolayer film produced on T.M. Long equipment, a laboratory simultaneous film stretcher (7x7@150°C):
Haze, ASTM D 1003, 20µm: 0.7 %
Tensile Tangent Modulus (0-1%), MA 18068, 5 mm/min, 20 µm: 2700 MPa
Stress at Break, MA 18068, 50 mm/min, 20 µm: 135 MPa
Elongation at Break, MA 18068, 50 mm/min, 20 µm: 32%

Notes

Typical properties; not to be construed as specifications.

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Release Date: 28 May 2013

Moplen HP528N

Polypropylene, Homopolymer

Product Description

Moplen HP528N is a polypropylene homopolymer. With its high clarity, high slip and anti-blocking properties, it is especially suitable for water-quenched tubular film (IPP). Potential end use applications include packaging for hosiery, shirts, other textiles and food.

Product Characteristics

Status	Commercial: Active
Test Method used	ASTM
Availability	Asia-Pacific, Australia/NZ, Africa-Middle East
Processing Method	Blown Film, Injection Molding
Features	Unspecified Antiblocking , High Clarity, Homopolymer, Good Processability, Good Stiffness , High Slip
Typical Customer Applications	Food Packaging Film, Textile Packaging Film

Typical Properties	Method	Value	Unit
Physical			
Density -Specific Gravity	ASTM D 792	0.90	g/cm³
Melt flow rate (230°C/2.16kg)	ASTM D 1238	11	g/10 min
Mechanical			
Tensile Strength @ Yield	ASTM D 638	34	MPa
Flexural Modulus	ASTM D 790	1500	MPa
Tensile Elongation @ Yld	ASTM D 638	10	%
Impact			
Notched izod impact (23 °C)	ASTM D 256	23	J/m
Thermal			
DTUL @66psi - Unannealed	ASTM D 648	97	°C

Notes

Typical properties; not to be construed as specifications.

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Release Date: 06 Dec 2007

Moplen HP552R

Polypropylene, Homopolymer

Product Description

Moplen HP552R is suitable for extrusion applications. It is formulated with an anti-gasfading stabilisation package. Moplen HP552R is designed for the production of continuous filaments (CF), bulk continuous filaments (BCF) and fine denier staple fibres. Typical applications are carpets and nonwovens.

Product Characteristics

Status	Commercial: Active
Test Method used	ISO
Availability	Europe, Africa-Middle East
Processing Method	Continuous Filament/Spinning, Staple Fibre
Features	Gas-fading Resistant, Homopolymer, Good Processability
Typical Customer Applications	Bulk Continuous Filament & Continuous Filament, Nonwoven Staple Fibres, Staple Fiber, Filament Yarn, Hygiene Nonwoven, Wipes/Tissues

Typical Properties	Method	Value	Unit
Physical			
Melt flow rate (MFR) (230°C/2.16kg)	ISO 1133	25	g/10 min
Melt volume flow rate (230°C/2.16 kg)	ISO 1133	34	cm³/10min
Mechanical			
Tensile modulus	ISO 527	1500	MPa
Thermal			
Heat deflection temperature B (0.45 MPa) Unannealed	ISO 75B-1, -2	97	°C
Vicat softening temperature	ISO 306		
(A50 (50°C/h 10N))		153	°C
(B50 (50°C/h 50N))		92	°C

Notes

Typical properties; not to be construed as specifications.

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Release Date: 19 Oct 2009