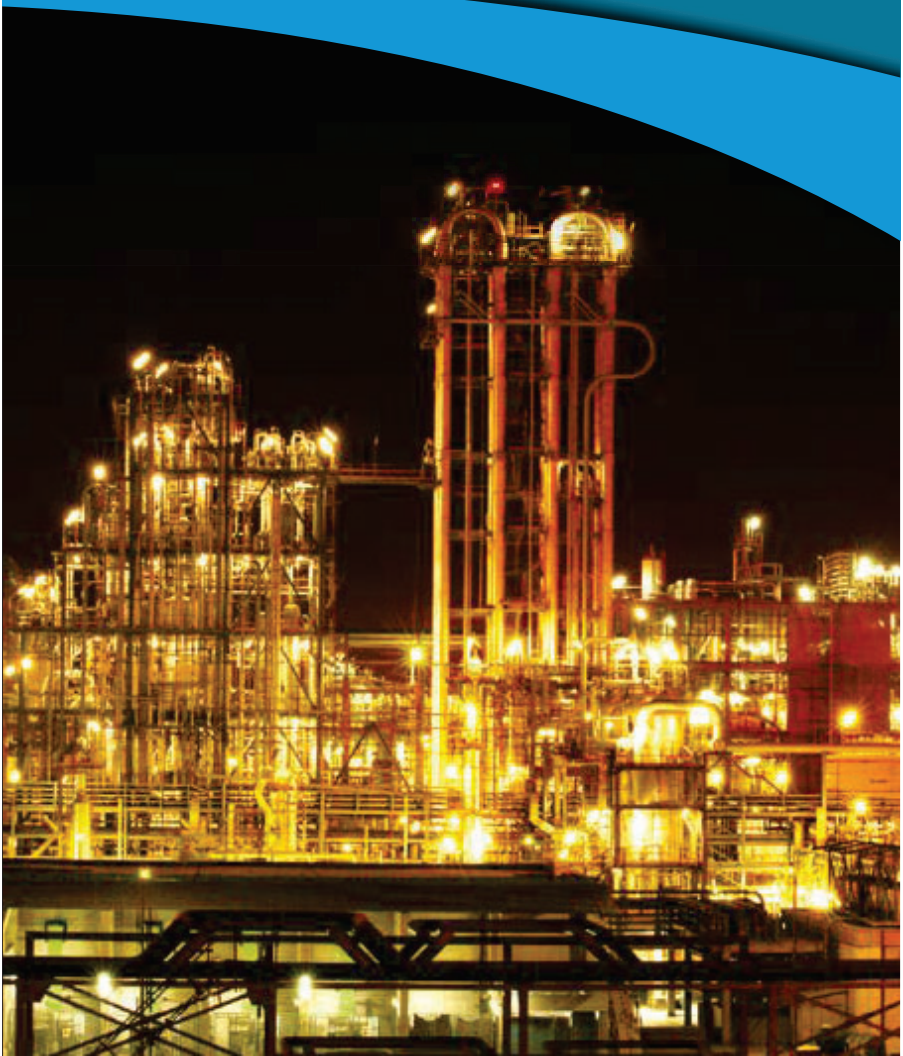
Polypropylene Random Copolymer



598 RCXP

598 RCXP Is a medium modified random copolymer for the production of cast and blown film with a reduced blooming effect.

598 RCXP is formulated with a general purpose stabilisation package and does not contain any slip- or antiblocking agents.

598 RCXP offers easy processability on both cast and water-quenched blown film lines.

The mechanical properties of film made with 598 RCXP are outstanding and the optical characteristics are superior to films made with conventional random copolymers.

The seal initiation temperature is about 130°C and the blooming effect is minimal.

Because of the good heat wetdability , 598 RCXP is suitable for monolayer film as well as for sealing layer in coextruded films or laminated structures (e.g. with BOPP, PA. polyester or aluminium).

Films produced with 598 RCXP are particularly suited for the packaging of foodstuffs and textiles and for the production of stationery folders.

PROPERTIES	METHOD (b)	UNIT	TYPICAL VALUE (a)
Physical properties			
Melt flow rate (230°C, 2.16 kg)	ISO 1133	Dg / min	9
Density	ISO 1183	g/cm^3	0.9
Mechanical properties			
Flexural modulus	ISO 178	N/mm^2	950
Tensile strength yield	ISO R 527	N/mm^2	25
Elongation at yield	ISO R 527	%	13
IZOD impact strenghh (notched)at 23°C	ISO 180	kJ/m^2	4
Hardness Shore D	ISO 868	Points	65
Thermal properties			
Vicat softening point (9.8N)	ISO 306/A	°C	135
H.D.T.(0.46 Mpa)	ISO 75/B	°C	82
Accelerated oven ageing in air (forced circulation) at 150°C	ISO 4577	hours	360
Optical Properties			
Haze	MTM 17031	%	0.5
Gloss (45°C)	MTM 17021	%	88

a) Values shown are averages and are not to be considered as product specification These values may shift slightly as additional data are accumlsted.

b) ISO test methods are the lates under the societys current procedures.

All specimens are prepared by injection moulding.

599 RCXP

599 RCXP is a medium modified random copolymer for the production of cast and blown film with a reduced blooming effect.

599 RCXP is formulated with slip" and antiblocking agents and exhibits very low blooming properties.

599 RCXP offers easy processability on both cast and water-quenched blown film lines.

The mechanical properties of film made with 599 RCXP are outstanding and the optical characteristics are superior to films made with conventional random copolymers.

The seal initiation temperature is about 130°C and the blooming effect is minimal.

Because of the good heat weldability. 599 RCXP is suitable for monolayer film as well as for sealing layer in coextruded films or laminated structures (e.g. with BOPP, PA, polyester or aluminium).

Films produced with 599 RCXP are particularly suited for the packaging of foodstuffs and textiles and for the production of stationery folders.

PROPERTIES	METHOD (b)	UNIT	TYPICAL VALUE (a)
Physical properties			
Melt flow rate (230°C, 2.16 kg)	ISO 1133	Dg / min	9
Density	ISO 1183	g/cm^3	0.9
Mechanical properties			
Flexural modulus	ISO 178	N/mm^2	950
Tensile strength yield	ISO R 527	N/mm^2	25
Elongation at yield	ISO R 527	%	13
IZOD impact strenghh (notched)at 23°C	ISO 180	kJ/m^2	4
Hardness Shore D	ISO 868	Points	65
Thermal properties			
Vicat softening point (9.8N)	ISO 306/A	°C	135
H.D.T.(0.46 Mpa)	ISO 75/B	°C	82
Accelerated oven ageing in air (forced circulation) at 150°C	ISO 4577	hours	360
Optical Properties			
Haze	MTM 17031	%	1.8
Gloss (45°C)	MTM 17021	%	85

a) Values shown are averages and are not to be considered as product specification These values may shift slightly as additional data are accumlsted.

b) ISO test methods are the lates under the societys current procedures.

All specimens are prepared by injection moulding.

EP1 X 30 F

EP1 X 30 F is a slightly modified polypropylene random copolymer for the production of cast and water-quenched blown film. EP1 X 30 F is formulated with a general purpose package and does not contain any slip or antiblock agents.

EP1 X 30 F is designed for quality packaging applications, either as monolayer film or as welding layer on coextruded structures. The product offers excellent processability. high clarity and gloss and good heat weldabilrty. The seal initiation temperature is about 136*C.

Because of its good heat weldabilrty, EP1 X 30 F is well suited for lamination to bioriented polypropylene films or other materials to form a welding layer.

Film produced with EP1 X 30 F is particularly suited for packaging of foodstuffs such as sweets, pasta, biscuits and snacks and for the packaging of books.

stationery, blankets, shirts and hosiery.

EP1 X 30 F is furthermore suitable for injection moulding caps and closures.

PROPERTIES	METHOD (b)	UNIT	TYPICAL VALUE (a)
Physical properties			
Melt flow rate (230°C, 2.16 kg)	ISO 1133	Dg / min	8
Density	ISO 1183	g/cm^3	0.9
Mechanical properties			
Flexural modulus	ISO 178	N/mm^2	1050
Tensile strength yield	ISO R 527	N/mm^2	28
Elongation at yield	ISO R 527	%	14
IZOD impact strenghh (notched)at 23°C	ISO 180	kJ/m^2	4.5
Hardness Shore D	ISO 868	Points	67
Thermal properties			
Vicat softening point (9.8 N)	ISO 306/A	°C	140
H.D.T. (0.46 Mpa)	ISO 75/B	°C	90
Accelerated oven ageing in air (forced circulation) at 150°C	ISO 4577	hours	360
Optical Properties			
Haze	MTM 17031	%	0.6
Gloss (45°C)	MTM 17021	%	88

a) Values shown are averages and are not to be considered as product specification These values may shift slightly as additional data are accumlsted.

b) ISO test methods are the lates under the societys current procedures.

All specimens are prepared by injection moulding.

EP1 X 35 AF

EP1 X 35 AF is a slightly modified random copolymer for the mproduction of cast and water-quenched blown film.
EP1 X 35 AF is formulated with a slip and antiblock package and exhibits excellent antistatic properties.
EP1 X 35 AF is designed for quality packaging applications, either as monolayer film or as welding layer on coextruded structures. The product offers excellent processability, high clarity and gloss and good heat weldability. The seal initiation temperature is about 136 °C.
Because of its good heat weldability, EP1 X 35 AF is well suited for lamination to bioriented polypropylene film or other materials to form the welding layer.
Film produced with EP1 X 35 AF is particularly suited for the packaging of foodstuffs such as sweets, pasta, biscuits and snacks and for the packaging of books, stationery, blankets, shirts and hosiery.

PROPERTIES	METHOD (b)	UNIT	TYPICAL VALUE (a)
Physical properties			
Melt flow rate (230°C, 2.16 kg)	ISO 1133	Dg / min	8
Density	ISO 1183	g/cm^3	0.9
Mechanical properties			
Flexural modulus	ISO 178	N/mm^2	1050
Tensile strength yield	ISO R 527	N/mm^2	28
Elongation at yield	ISO R 527	%	14
IZOD impact strenghh (notched)at 23°C	ISO 180	kJ/m^2	4.5
Hardness Shore D	ISO 868	Points	67
Thermal properties			
Accelerated oven ageing in air (forced circulation) at 150°C	ISO 4577	hours	360
Optical Properties			
Haze	MTM 17031	%	0.8
Gloss (45°C)	MTM 17021	%	85

a) Values shown are averages and are not to be considered as product specification These values may shift slightly as additional data are accumlsted.

b) ISO test methods are the lates under the societys current procedures.

All specimens are prepared by injection moulding.

EP1 X 35 HF

EP1 X 35 HF is a slightly modified random copolymer for the production of cast and blown film. EP1 X 35 HF exhibits a high rigidity and very good optical properties. The product contains slip- and antiblocking agents.

EP1 X 35 HF offers easy processability on both cast and water-quenched blown film lines.

The mechanical properties of film made with EP1 X 35 HF are outstanding and the optical characteristics are superior to films made with conventional random copolymers.

The seal initiation temperature is about 136°C and the blooming effect is minimal.

Because of the good heat weldabil'rty, EP1 X 35 HF is suitable for monolayer film as well as for sealing layer in coextruded films or in laminated structures, (e.g. with BOPP, PA, polyester or aluminium).

Film produced with EP1 X 35 HF is particularly suited for the packaging of foodstuffs, shirts, knitwear and hosiery.

PROPERTIES	METHOD (b)	UNIT	TYPICAL VALUE (a)
Physical properties			
Melt flow rate (230°C, 2.16 kg)	ISO 1133	Dg / min	8
Density	ISO 1183	g/cm^3	0.9
Mechanical properties			
Flexural modulus	ISO 178	N/mm^2	1100
Tensile strength yield	ISO R 527	N/mm^2	28
Elongation at yield	ISO R 527	%	14
IZOD impact strenghh (notched)at 23°C	ISO 180	kJ/m^2	5
Hardness Shore D	ISO 868	Points	67
Thermal properties			
Accelerated oven ageing in air (forced circulation) at 150°C	ISO 4577	hours	360
Optical Properties			
Haze	MTM 17031	%	1.6
Gloss (45°C)	MTM 17021	%	86

a) Values shown are averages and are not to be considered as product specification These values may shift slightly as additional data are accumlsted.

b) ISO test methods are the lates under the societys current procedures.

All specimens are prepared by injection moulding.

EP2 C 30 F

EP2 C 30 F is a medium modified polypropylene random copolymer for the extrusion of cast and water-quenched blown film.

EP2 C 30 F is formulated with a general purpose stabilisation package and does not contain any slip or antiblock agents.

EP2 C 30 F offers good processability, excellent clarity and gloss and exhibits very good heat weldability. The seal initiation temperature is about 130°C.

EP2 C 30 F is designed for quality packaging applications, either as monotayer film or as welding layer in coextruded structures.

Because of the excellent weldability, EP2 C 30 F is well suited for lamination to PP-film or other materials such as PA, polyester or aluminium to form the sealing layer.

Film produced with EP2 C 30 F is suited for the packaging of foodstuffs such as biscuits, sweets, pasta, tea and for the packaging of stationery, shirts and hosiery.

EP2 C 30 F is also appropriate for the production of stationery folders.

PROPERTIES	METHOD (b)	UNIT	TYPICAL VALUE (a)
Physical properties			
Melt flow rate (230°C, 2.16 kg)	ISO 1133	Dg / min	6
Density	ISO 1183	g/cm^3	0.9
Mechanical properties			
Flexural modulus	ISO 178	N/mm^2	900
Tensile strength yield	ISO R 527	N/mm^2	25
Elongation at yield	ISO R 527	%	14
IZOD impact strenghh (notched) at 23°C	ISO 180	kJ/m^2	6
Hardness Shore D	ISO 868	Points	65
Thermal properties			
Vicat softening point (9.8N)	ISO 306/A	°C	135
H.D.T.(0.46 Mpa)	ISO 75/B	°C	82
Accelerated oven ageing in air (forced circulation) at 150°C	ISO 4577	hours	360
Optical Properties			
Haze	MTM 17031	%	0.9
Gloss (45°C)	MTM 17021	%	90

a) Values shown are averages and are not to be considered as product specification These values may shift slightly as additional data are accumlsted.

b) ISO test methods are the lates under the societys current procedures.

All specimens are prepared by injection moulding.

EP2 C 37 F

EP2 C 37 F is a medium modified polypropylene random copolymer for the extrusion of cast and water-quenched blown film.

EP 2 C 37 F is formulated with a slip and antiblock package.

EP2 C 37 F offers good processability, excellent clarity and gloss and exhibits very good heat weldability. The seal initiation temperature is about 130°C.

EP2 C 37 F is designed for quality packaging applications, either as monolayer film or as welding layer in coextnided structures.

Because of the excellent weldability, EP2 C 37 F is well suited for lamination to PP-film crather materials such as PA, polyester or aluminium to form the sealing layer.

Film produced with EP2 C 37 F is suited for the packaging of foodstuffs such as biscuits, sweets, pasta, tea and for the packaging of stationery, shirts and hosiery. EP2 C 37 F is also appropriate for the production of stationery folders.

PROPERTIES	METHOD (b)	UNIT	TYPICAL VALUE (a)
Physical properties			
Melt flow rate (230°C, 2.16 kg)	ISO 1133	Dg / min	6
Density	ISO 1183	g/cm^3	0.9
Mechanical properties			
Flexural modulus	ISO 178	N/mm^2	900
Tensile strength yield	ISO R 527	N/mm^2	25
Elongation at yield	ISO R 527	%	14
IZOD impact strenghh (notched) at 23°C	ISO 180	kJ/m^2	6
Hardness Shore D	ISO 868	Points	65
Thermal properties			
Vicat softening point (9.8N)	ISO 306/A	°C	135
H.D.T.(0.46 Mpa)	ISO 75/B	°C	82
Accelerated oven ageing in air (forced circulation) at 150°C	ISO 4577	hours	360
Optical Properties			
Haze	MTM 17031	%	1.8
Gloss (45°C)	MTM 17021	%	88

a) Values shown are averages and are not to be considered as product specification These values may shift slightly as additional data are accumlsted.

b) ISO test methods are the lates under the societys current procedures.

All specimens are prepared by injection moulding.

EP2 S 12 B

EP2 S 12 B is a medium modified polyropylene random co-polymer specifically designed for blow moulding and sheet extrusion.

EP 2 S 12 B complies with the European Pharmacopeia.

EP2 S 12 B offers excellent processability in extrusion blow moulding and can be converted on form-fill-seal equipment. The product is also suitable for the extrusion of film and sheet for thermoforming.

EP2 S 12 B offers a good impact strength, good clarity and high chemical resistance.

The main applications of this product are transparent bottles and containers forblood, intravenous solutions, pharmaceutical solutions, medicines and salves.

Other applications are packaging for health care products (toothpaste, mouthwash, saline solutions), film and sheet for thermoforming.

PROPERTIES	METHOD (b)	UNIT	TYPICAL VALUE (a)
Physical properties			
Melt flow rate (230°C, 2.16 kg)	ISO 1133	Dg / min	1.8
Density	ISO 1183	g/cm^3	0.9
Mechanical properties			
Flexural modulus	ISO 178	N/mm^2	900
Tensile strength yield	ISO R 527	N/mm^2	25
Elongation at yield	ISO R 527	%	14
IZOD impact strenghh (notched)at 23°C	ISO 180	kJ/m^2	10
Hardness Shore D	ISO 868	Points	65
Thermal properties			
Vicat softening point (9.8N)	ISO 306/A	°C	135
H.D.T.(0.46 Mpa)	ISO 75/B	°C	80
Accelerated oven ageing in air (forced circulation) at 150°C	ISO 4577	hours	360
Optical Properties			
Haze	MTM 17031	%	32
Gloss (45°C)	MTM 17021	%	65

a) Values shown are averages and are not to be considered as product specification These values may shift slightly as additional data are accumlsted.

b) ISO test methods are the lates under the societys current procedures.

All specimens are prepared by injection moulding.

EP2 S 29 B

EP2 S 29 B is a clear polypropylene random copolymer particularly suited for blow moulding technology and single or multi-layer sheet extrusion.

The product imparts excellent clarity and gloss and these characteristics may be further enhanced through orientation processes (i.e. injection stretch blow moulding). Due to these properties EP 2 S 29 B is an interesting alternative to P.V.C. for use in blow moulding, sheet extrusion and thermoforming applications.

Blow moulding applications for EP 2 S 29 B include bottles for detergents and toiletries, flat mineral water, fresh fruit juice and concentrates, jars for condiments and preserves. Extruded sheets made of EP 2 S 29 B are widely used in stationery folders and thermoforming articles such as trays for fresh pasta, sweets or biscuits, fruit and vegetable containers and pots for dairy products.

PROPERTIES	METHOD (b)	UNIT	TYPICAL VALUE (a)
Physical properties			
Melt flow rate (230°C, 2.16 kg)	ISO 1133	Dg / min	1.8
Density	ISO 1183	g/cm^3	0.9
Mechanical properties			
Flexural modulus	ISO 178	N/mm^2	1000
Tensile strength at yield	ISO R 527	N/mm^2	26
Elongation at yield	ISO R 527	%	14
IZOD impact strenghh (notched)at 23°C	ISO 180	kJ/m^2	50
Hardness Shore D	ISO 868	Points	66
Thermal properties			
Vicat softening point (9.8 N)	ISO 306/A	°C	136
H.D.T. (0.46 Mpa)	ISO 75/B	°C	90
Accelerated oven ageing in air (forced circulation) at 150°C	ISO 4577	hours	360

EP2 S B is suitable for food contact and for medical applicatons.

a) Values shown are averages and are not to be considered as product specification These values may shift slightly as additional data are accumlsted.

b) ISO test methods are the lates under the societys current procedures.

All specimens are prepared by injection moulding.

EP2 S 30 B

EP2 S 30 B is a medium modified polypropylene random copolymer. The product is designed for the extrusion of film and sheet and for blow moulding small and medium sized Hems.

The processability of this grade is excellent and the items produced with it show good impact strength, good clarity and high gloss.

EP2 S 30 B also offers the advantages typical of polypropylene: low density, stress cracking resistance and high chemical resistance.

EP2 S 30 B is widely used for the extrusion of film for packaging and sheet for stationery folders and displays.

Another major application is the extrusion blow moulding of high gloss monolayer bottles, clear or pigmented, for the packaging of cosmetics, detergents, chemicals and food-stuffs.

PROPERTIES	METHOD (b)	UNIT	TYPICAL VALUE (a)
Physical properties			
Melt flow rate (230°C, 2.16 kg)	ISO 1133	Dg / min	1.8
Density	ISO 1183	g/cm^3	0.9
Mechanical properties			
Flexural modulus	ISO 178	N/mm^2	900
Tensile strength yield	ISO R 527	N/mm^2	25
Elongation at yield	ISO R 527	%	14
IZOD impact strenghh (notched)at 23°C	ISO 180	kJ/m^2	10
Hardness Shore D	ISO 868	Points	65
Thermal properties			
Vicat softening point (9.8N)	ISO 306/A	°C	135
H.D.T.(0.46 Mpa)	ISO 75/B	°C	80
Accelerated oven ageing in air (forced circulation) at 150°C	ISO 4577	hours	360
Optical Properties			
Haze	MTM 17031	%	32
Gloss (45°C)	MTM 17021	%	7365

a) Values shown are averages and are not to be considered as product specification These values may shift slightly as additional data are accumlsted.

b) ISO test methods are the lates under the societys current procedures.

All specimens are prepared by injection moulding.

EP2 X 49 GA

EP2 X 49 GA is a polypropylene random copolymer which features extremely high flow properties, excellent transparency, high gloss and exhibits good antistatic properties.
EP2 X 49 GA is mainly designed for transparent housewares and quality packaging applications.
EP2 X 49 GA is an outstanding grade for injection moulded containers and thin-walled packaging where clarity is of utmost importance.
Typical injection moulding applications include food storage containers, household articles, packaging for food, cosmetics and pharmaceutical products, lids, caps and closures.
In many of these applications, EP2 X 49 GA can replace PS since it can match the optical properties whilst adding low weight, low odour transfer, chemical resistance and impact strength.
Another major application of EP2 X 49 GA is the coextrusion with other polypropylene resins to produce multilayer sheet for thermoforming trays for fresh pasta and bakery products.

PROPERTIES	METHOD (b)	UNIT	TYPICAL VALUE (a)
Physical properties			
Melt flow rate (230°C, 2.16 kg)	ISO 1133	Dg / min	10
Density	ISO 1183	g/cm^3	0.9
Mechanical properties			
Flexural modulus	ISO 178	N/mm^2	1050
Tensile strength yield	ISO R 527	N/mm^2	28
Elongation at yield	ISO R 527	%	14
IZOD impact strenghh (notched)at 23°C	ISO 180	kJ/m^2	6
Hardness Shore D	ISO 868	Points	66
Thermal properties			
Vicat softening point (9.8N)	ISO 306/A	°C	136
H.D.T.(0.46 Mpa)	ISO 75/B	°C	92
Accelerated oven ageing in air (forced circulation) at 150°C	ISO 4577	hours	360
Optical Properties			
Haze	MTM 17031	%	10
Gloss (45°C)	MTM 17021	%	73

a) Values shown are averages and are not to be considered as product specification These values may shift slightly as additional data are accumlsted.

b) ISO test methods are the lates under the societys current procedures.

All specimens are prepared by injection moulding.

EP2 YX 29 GA

EP2 YX 29 GA is a polypropylene random copolymer with excellent flow properties.
The product features very high transparency and gloss and exhibits good antistatic properties.
Moplen EP 2 YX 29 GA is mainly designed for transparent housewares and quality packaging applications.
EP 2 YX 29 GA is an outstanding grade for injection moulded containers and thin-walled packaging where clarity is of utmost importance.
Typical injection moulding applications include food storage containers, household articles, packaging for food, cosmetics and pharmaceutical products, lids, caps and closures.
In many of these applications, EP 2 YX 29 GA can replace PS since it can match the optical properties whilst adding low weight, low odour transfer, chemical resistance and impact strength.
Another major application of EP 2 YX 29 GA is the coextrusion with other polypropylene resins to produce multilayer sheet for thermoforming trays for fresh pasta and bakery products.

PROPERTIES	METHOD (b)	UNIT	TYPICAL VALUE (a)
Physical properties			
Melt flow rate (230°C, 2.16 kg)	ISO 1133	Dg / min	10
Density	ISO 1183	g/cm^3	0.9
Mechanical properties			
Flexural modulus	ISO 178	N/mm^2	1050
Tensile strength yield	ISO R 527	N/mm^2	28
Elongation at yield	ISO R 527	%	14
IZOD impact strenghh (notched)at 23°C	ISO 180	kJ/m^2	6
Hardness Shore D	ISO 868	Points	66
Thermal properties			
Vicat softening point (9.8N)	ISO 306/A	°C	136
H.D.T.(0.46 Mpa)	ISO 75/B	°C	92
Accelerated oven ageing in air (forced circulation) at 150°C	ISO 4577	hours	360
Optical Properties			
Haze	MTM 17031	%	17
Gloss (45°C)	MTM 17021	%	73

a) Values shown are averages and are not to be considered as product specification These values may shift slightly as additional data are accumlsted.

b) ISO test methods are the lates under the societys current procedures.

All specimens are prepared by injection moulding.

EP2 Z 29 G

EP2 Z 29 G is a polypropylene random copolymer with a high melt flow and outstanding transparency and gloss and is designed for injection moulding applications.

EP 2 Z 29 G is the material of choice for applications where transparency is a primary requirement, such as household containers, videocassette boxes, lids, caps and packaging for food, cosmetics and pharmaceutical products.

EP 2 Z 29 G is well suited for injection moulding clear tubs and pots for ice cream, yoghurt and other desserts.

Other typical applications of EP 2 Z 29 G include injection moulded items for the medical sector such as syringes, test tubes and vials.

EP 2 Z 29 G is also suitable for injection stretch blow moulded containers and bottles. This product combines good see through clarity and excellent moisture barrier properties with hot fillability.

Therefore, EP 2 Z 29 G offers an effective alternative for PET and PVC for the packaging of non-oxygen sensitive products such as confectionary, herbs, toiletries and cosmetics.

PROPERTIES	METHOD (b)	UNIT	TYPICAL VALUE (a)
Physical properties			
Melt flow rate (230°C, 2.16 kg)	ISO 1133	Dg / min	25
Density	ISO 1183	g/cm^3	0.9
Mechanical properties			
Flexural modulus	ISO 178	N/mm^2	1050
Tensile strength yield	ISO R 527	N/mm^2	28
Elongation at yield	ISO R 527	%	14
IZOD impact strenghh (notched) at 23°C	ISO 180	kJ/m^2	5
Hardness Shore D	ISO 868	Points	66
Thermal properties			
Vicat softening point (9.8N)	ISO 306/A	°C	137
H.D.T.(0.46 Mpa)	ISO 75/B	°C	94
Accelerated oven ageing in air (forced circulation) at 150°C	ISO 4577	hours	360
Optical Properties			
Haze	MTM 17031	%	≤20
Gloss (45°C)	MTM 17021	%	≥73

a) Values shown are averages and are not to be considered as product specification These values may shift slightly as additional data are accumlsted.

b) ISO test methods are the lates under the societys current procedures.

All specimens are prepared by injection moulding.