



## POLYPROPYLENE - HOMOPOLYMER

### PP-HOMOPOLYMER-FIBRE

Grade Name	MFR (gr/10min) (2.16kg,230 C)	Properties	Application
F20S	11	Medium gas – fading resistance.	BCF and CF multifilament, medium- low denier staple yarn, trilobe sections
F39S	12	General purpose with high gas – fading resistance.	Wool staple fiber, heavy denier CF multifilament.
HP554N	12	Outstanding spin ability, superior thermo-bonded properties & excellent anti-gas fading properties	Fine denier staple fibers for non woven, thermo-bonded fabrics. Feminine care products, medical disposables and filters.
HP500N	12	Good processability & constant, high flow during extrusion.	Wool staple fiber, heavy denier CF, multifilament for ropes, belts & straps and decorative ribbons.
V30S	18	Good flow, medium MWD.	Fine denier staple fibres, thermo-bonded non-woven fabrics, upholstery and hygiene, Diapers, incontinence pads, feminine care.
HP554P	18	Good flow, Medium MWD, Anti gas fading	Fine denier staple fibres, thermo-bonded non-woven fabrics, upholstery and hygiene, Diapers, incontinence pads, feminine care.
HP552R	25	High flow, medium MWD.High stretch ratio and gives tough and resilient fibres and Anti gas fading	Short & long spinning, low denier staple fiber, BCF and CF multifilament, low denier staple fibres for non-woven fabrics, medical-sanitary applications and wipes, carpet face yarns , backpacks, big bag handles and safety belts.
H30S	35	High flow, medium MWD.	Fine denier cotton staple fiber, high speed short spinning operations. Coating of woven PP film yarn fabrics and paper coating. Injection moulding for household articles, toys and packaging.

### PP-HOMOPOLYMER-SPUN BOND

Grade Name	MFR(gr/10min) (2.16kg,230 C)	Properties	Application
HP562R	25	Spun-bond grade with very narrow MWD and very high speed production.	Low denier CF for spun bonding, non woven fabrics, diapers, medical and sanitary tissues.
HOXP2004	35	High fluidity spun-bond grade with very narrow MWD and anti-gas Fading performance.	Low denier CF for spun bonding, non woven fabrics, diapers, medical and sanitary tissues. High output and high tenacity fibers.
HP565S	38	Very high flow spun bond grade with narrow MWD.	Fine denier non-woven such as Non-woven fabrics for industrial and medical applications. backing and lining for furniture and carpet industries.



PP-HOMOPOLYMER-INJECTION MOULDING			
Grade Name	MFR(gr/10min) (2.16kg,230 C)	Properties	Application
EP2S34F	1.8	Excellent process ability on tubular lines, slip agent modified	Injection moulding of wheels, fittings and high performance items are other application.
Q30G	0.7	Particular molding purpose.	Technical items such as cops & clothes-pins
HP502H	1.8	High stiffness and good impact strength, excellent process ability.	Appliance components, textile bobbins, wheels, fitting, closures, caps.
HP500J	3.2	High stiffness & fairly good impact strength with good process ability.	Technical items such as parts for small appliances & automotive industry. House wares, caps, closures, small containers, toys. It is also used for compounding
HP500L	6	Easy processing & high stiffness.	Household articles, small containers, crates, garden furniture, stadium seats, toys, caps, closures. Components for appliances & automotive industry.
HP500M	8	Easy processing & high stiffness.	Household articles, food containers, crates, garden furniture, toys, caps, closures. Components for appliances & automotive industry.
HP502N	12	Good flow, good dimensional stability & high stiffness.	Consumer goods such as food containers, vacuum flasks, flower pots, garden furniture & small appliances. in the medical sector It can be used for 3-part syringes & a wide range of health care items.
HP500P	16	Good flow & easy module filling & short cycle Times and high stiffness.	Thin-walled articles with long flow path such as containers, boxes, caps, closures. Polymer base for compounding & master batches.
Z11G	25	Suitable for medical gamma rays sterilization.	Syringes and hospital articles
HP300R	26	Very good process ability and high stiffness.	Thin-walled containers & general purpose packaging items, vacuum flasks, kitchen articles. Compounding & master batches.
HP648S	35	High melt flow homo-polymer with a narrow molecular weight distribution and optimum antistatic properties.	Thin-walled items such as videocassette boxes & small appliances.
D50G	0.3	Excellent lon- term heat ageing resistance high mechanical properties.	



### PP-HOMOPOLYMER-EXTRUSION THERMOFORMING & BLOW MOULDING

Grade Name	MFR(gr/10min) (2.16kg,230 C)	Properties	Application
D60P	0.3	Excellent long-term heat ageing and detergents resistance. High mechanical properties	Pressure pipes, extruded and cast sheet.
HP501D	0.7	Excellent process ability with an outstanding mechanical properties balance.	Technical extrusion for strapping, sheet, profiles, nets and small diameter pipes such as refills for ball pens. Blow moulding small and medium sized containers.
S60D	1.8	Excellent long-term heat stability with detergent resistance.	Extruded sheet, blow moulded technical items (such as tanks).
HP500H	1.8	Excellent process ability with high stiffness.	Thermoforming such as drinking beakers, packaging for dairy products, nursery flower pots& trays for fruits, biscuits & chocolates .Film yarn, both with cast and tubular process, mono filaments, Strapping, extruded nets, blow moulded small containers.
HP640H	2	Very high stiffness, excellent contact clarity, high gloss and good antistatic & Excellent organoleptic properties.	Hot fill applications and thermoforming vending cups, blister packs, pots for dairy products and trays for biscuits, chocolates, and fruits.
T31SE	3.2	High stiffness, excellent process ability, good contact clarity and high gloss.	Sheet for thermoforming. Vending cups, packaging for dairy products, trays for biscuits, chocolates and fruits. Co-extruded multilayer sheet with high barrier properties to produce retortable containers.

### PP-HOMOPOLYMER-FILM YARN AND MONOFILAMENT

Grade Name	MFR(gr/10min) (2.16kg,230 C)	Properties	Application
S30SW	1.8	Excellent process ability with high stiffness, low water carry over	Textile Film yarn, ropes, extruded nets.
S33LS	1.8	High mechanical properties and medium UV resistance.	Textile Film yarn, ropes, twins for agricultural use.
HP550J	2.3	Outstanding process ability with good mechanical properties.	Film yarn, both with cast & tubular processes for the production of carpet backings, bags, industrial fabrics, mats & artificial grass, baler twines, packaging twines & ropes. Monofilament used for instance for brush & broom filling. Extrusion of nets for various purposes .Stiff sheet for high quality thermoforming such as vending cups, packaging for dairy products & trays for fruit, biscuits & chocolates.
HP510L	6	Outstanding process ability with good mechanical properties.	Film yarn cast process for baler twines, packaging twines and ropes. Monofilament used in brush and broom filling and technical applications. Monolayer or co-extruded film for packaging. Thin sheet for stationary folders and sheets for thermoforming and extrusion of straws.



PP-HOMOPOLYMER-BIORIENTED FILM			
Grade Name	MFR(gr/10min) (2.16kg,230 C)	Properties	Application
S28F	1.8	Excellent process ability and low water carry-over. High gloss & transparency. Good optical properties.	Film for packaging, special grade for metallization. Monolayer and co extruded film Also suitable for lamination to other flexible films.
S38F	1.8	High transparency and gloss. Very stable extrusion. Good mechanical properties.	Monolayer films are used for food packaging, textiles packaging and flower wrappings, double bubble lines, adhesive tapes. BOPP films are used for lamination to other flexible films.
S38FT	1.8	Excellent process ability on tubular lines.	Adhesive tapes. Packaging in general.
T36F	2.5	Excellent process ability on cast lines, high transparency and gloss.	Monolayer films are used for food packaging, textiles packaging and also for medical application.
PP-HOMOPOLYMER-CAST FILM			
Grade Name	MFR(gr/10min) (2.16kg,230 C)	Properties	Application
X30S		Good processability in cast process.	Single layer and coextruded film for food packaging, textile wrapping, stationary and editorial application.



## POLYPROPYLENE-RANDOM COPOLYMER

### PP-RANDOM COPOLYMER-INJECTION MOULDING

Grade Name	MFR(gr/10min) (2.16kg,230 C)	Properties	Application
EP2X83CI	10	Excellent clarity and gloss.	Transparent house wares, food storage containers and packaging cosmetics and lids, caps and closures.
EP2YX29GA	10	Excellent flow and antistatic properties with very high transparency and gloss.	Containers and thin-walled packaging with high clarity for Food, cosmetics and pharmaceutical products. It also can replace PS whilst adding low weight, low odour transfer, chemical resistance and impact strength.
RP340R	25	High melt flow and outstanding transparency and gloss.	Packaging for food and cosmetics, pharmaceutical products. Injection moulded items for the medical sector such as syringes, test tubs and vials. Suitable for injection stretch blow moulded containers and bottles.

### PP-RANDOM COPOLYMER-CAST AND BLOWN FILM

Grade Name	MFR(gr/10min) (2.16kg,230 C)	Properties	Application
RP210M	6	Good process ability, excellent clarity and gloss and very good heat weld ability.	Lamination to PP-film or other materials such as PA, polyester or aluminum. Packaging of foodstuffs and books, stationery, shirts and hosiery.
RP310M	8	Excellent process ability, high clarity and gloss and good hest weld. Without slip or antiblock agents.	Lamination to BOPP film or other materials. Packaging of foodstuffs and books, stationery, shirts and hosiery. injection moulding caps and closures
RP316M	8	Formulated with slip and anti-block and exhibits excellent antistatic. Excellent process ability, high clarity and gloss and good heat weld ability.	Quality packaging as monolayer film or as welding layer on co-extruded structures. Lamination to BOPP film or other materials. Packaging of foodstuffs, books, stationery, shirts and hosiery.

### PP-RANDOM COPOLYMER-BIORIENTED FILM

Grade Name	MFR (gr/10min) (2.16kg,230 C)	Properties	Application
EP2 S 34 F	1.8	Excellent process ability on tubular lines, slip agent modified	Packaging of bread and other foodstuffs with heat-shrinkable film
RP129K	5	Low sealing temperature and, slip agent modified. Very high transparency, excellent gloss and outstanding heat weld ability.	Suited for metallized BOPP films include packaging for foodstuffs and confectionary and medical applications drinks labels and liquor cartons.
EP3 X 37 F	8	Low sealing temperature, slip and anti-blocking modified with Very high transparency, excellent gloss and outstanding heat weld ability and show good hot tack.	Quality packaging for food, Stationery, cosmetics, clothes and cigarettes. Suitable for the production of shrinkable co-extruded BOPP film for display packaging of foodstuff products.



## PP-RANDOM COPOLYMER-EXTRUSION

Grade Name	MFR(gr/10min) (2.16kg,230 C)	Properties	Application
ARP230	0.2	High heat and extremely high extraction stability.	Sanitary pipes for cold & hot water, industrial and chemical pipes. Other applications are pipe fittings and profiles.
EP2X83CE	1.8	Excellent clarity and gloss.	Bottle for detergents and toiletries, flat mineral water, jars for condiments and preserves.
RP210G	1.8	High cracking and chemical resistance.	Film for packaging & sheet for stationery folders and displays. Extrusion blow moulding of high gloss monolayer bottles, packaging of cosmetics, detergents, chemicals and food-stuffs.
RP210G	1.8	Low flow with a conventional MWD and is specially formulated with an additive package that enhances clarity.	Blow-moulded articles, extruded sheet and profiles with good melt strength, excellent clarity, excellent gloss and good regrind stability.
RP240G	1.8	High transparency and gloss, excellent process ability & can be converted on form-fill-seal equipments.	Blow moulded medical articles. transparent bottles & containers for blood, intravenous solutions, pharmaceutical solutions, medicines & salves. Packaging for health care products. Film & sheet for thermoforming.
RP270G	1.8	High transparency and gloss, excellent process ability & can be converted on form-fill-seal equipments.	Blow moulded medical articles. transparent bottles & containers for blood, intravenous solutions, pharmaceutical solutions, medicines & salves. Packaging for health care products. Film & sheet for thermoforming.



## POLYPROPYLENE-HIGH IMPACT COPOLYMER

### PP-HIGH IMPACT COPOLYMER-EXTRUSION

Grade Name	MFR(gr/10min) (2.16kg,230 C)	Properties	Application
EPD60R	0.35	Superior toughness even at low temperatures. Very high impact strength, extra heat stability and detergent resistance.	Blow moulding for Appliance components, wheels, under the hood automotive parts, toolboxes, suitcases and large containers. Profiles, sewage pipes and tough sheet for industrial applications. Thermoforming trays for cold storage.
EP310D	0.8	Smooth process ability and high mechanical properties. Good stiffness and very high impact strength, even at -20 OC.	Film for adhesive tapes and lamination to paper and other resins. Extrusion blow moulded containers for detergents, toiletries and foodstuffs. Corrugated board, smooth and corrugated pipe and sheet for thermoforming. Injection moulding items with very good mechanical properties balance.
EPYS30RE	1.3	Smooth process ability, good stiffness and Outstanding impact resistance, even at -20 O C.	Corrugated board and sheet for thermoforming. Blow moulded bottles and containers for detergents and foodstuffs and technical parts for the automotive and appliance industries.



<b>PP-HIGH IMPACT COPOLYMER-INJECTION</b>			
<b>Grade Name</b>	<b>MFR(gr/10min) (2.16kg,230 C)</b>	<b>Properties</b>	<b>Application</b>
EPS30R	1.5	High impact strength, excellent processing characteristics.	Crates, paint fails, heavy duty packaging.
EP200K	3.5	Outstanding processability with extremely high impact resistance and very high toughness.	Furniture and suitcases, Sport and bicycles parts. Boxes, containers, pallets, crates, pails and lids. Bitumen modification and compounding applications.
EP300K	3.5	Medium – high flow, excellent balance between flow, very high impact strength and good stiffness.	Medium sized containers, buckets, pails, crates for cold storage. Household articles. Small appliance, automotive and industrial application. Seats, chair shells, toys, suitcases. Thermoforming multilayer container for dairy products.
EP540L	6	Excellent balance of stiffness, impact strength (even at low temperatures) and process ability.	Crates, caps and thin-walled packaging for cold shelf presentation. Automotive & Appliance parts, wheels, furniture, chair shells and stadium seats. Cast film for stationery.
EPC40R	7	Excellent balance of mechanical properties & process ability & features an excellent long-term heat–stability. Very high resistance to chemicals & crazing.	Automotive components such as battery cases, brake fluid reservoirs, wash water reservoirs, dashboard supports, luggage compartment trims & door trim panels.
EP440N	12	Improved mechanical property balance and outstanding stiffness. Combines superior stiffness with high impact strength, even at low temperatures.	Packaging, automotive and consumer goods industries such as luggage, paint pails, buckets, crates, batteries and large toys.
EPF30R	13	Outstanding stiffness and high impact strength with high flow properties.	Packaging, automotive and consumer goods industries, household articles and closures.
EP548R	21	High stiffness, good impact resistance, high dimensional stability and excellent antistatic properties.	Thin-walled or long flow path articles such as flower pots, filters, filters housings and appliance components.
EP740R	25	High stiffness, good impact resistance, high dimensional stability and excellent antistatic properties.	Thin-walled or long flow path articles such as flower pots, filters, filters housings and appliance components.
EPH31RA	40	High stiffness, good impact resistance, outstanding organoleptic properties and excellent antistatic properties.	Thin-walled packaging such as margarine tubs and pots for mayonnaise and dairy or fatty products. Caps, closures and flower pots. Videocassette boxes, appliance components, and cool boxes.
EP548S	45	Nucleated with anti-static agent. Outstanding balance of mechanical properties and high fluidity.	Extensively used in house wares and in thin-walled containers for food packaging (e.g. margarine tubs, yoghurt pots, etc.).
EP348U	70	Very high melt flow rate. Excellent impact resistance, even at low temperatures and effective antistatic. Low shrinkage and minimal warpage.	Packaging for margarine tubs, pots for dairy products, ice-cream containers, trays, video cassette envelopes, caps and closures, Lunch-boxes, cool boxes, laundry baskets, and flower pots.
EP648V	100	Ultra high fluidity. Good stiffness/impact balance, good dimensional stability and outstanding antistatic properties.	Packaging, house wares and garden furniture. Items with long flow paths such as laundry bins, drawer trays, video boxes, margarine tubs and packaging for dairy products.