

HDPE

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HIGH DENSITY POLYETHYLENE GRADE PE2NT21-13

Injection molding

APPLICATION

Grade PE2NT21–13 is intended for further processing by injection moulding into articles for household and domestic use with increased cracking resistance such as bottle caps, box covers, caps, boxes, containers, trays, housewares, injection syringe parts and needles, toys.

TECHNICAL CHARACTERISTICS

	Parameter	Standard
1.	Density, kg/m ³ at 23 °C at 20 °C	948-955 950-957
2.	Melt flow index at 190 °C and load of 2.16 kg, g/10 min	3.0-7.0
3.	Melt flow index spread within a batch, %, maximum	±15
4.	Number of inclusions, pieces, maximum	10
5.	Melt Flow Ratio (MFI 21.6/MFI 2.16)	20-35
6.	Tensile yield strength, MPa, minimum	25
7.	Rupture strength, MPa, minimum	17
8.	Elongation at break, %, minimum	-
9.	Cracking resistance, hours, minimum	30
10.	Weight content of pellets less than 2 mm and more than 5 to 8 mm in size, %, maximum	1

Supply form: Pellets

Packing: Product is packed in polyethylene bags (one bag net weight 25.00±0.25kg) and stacked on flat pallets with shrink film. Maximum gross weight of a bundle is 2 tons.

Transportation: by all modes of transport.

Storage: polyethylene shall be stored in enclosed dry space preventing from direct sunlight on shelves or pallets at least 5 cm from the floor and at least 1 m from heaters, at temperature max 30°C, relative humidity max 80%.

Prior to processing bags with polymer shall be kept in production area for at least 12 hrs.

Information contained herein is provided to the best of our knowledge and is considered true on the revision date. This specification does not release a customer from obligation to check the product as to suitability thereof for the intended application. A producer shall not be liable for any loss and damage that might occur due to use of this information.

HIGH DENSITY POLYETHYLENE GRADE PE2NT22-12

Injection molding

APPLICATION

Grade PE2NT22-12 is intended for further processing by injection moulding into articles for household and domestic use with increased cracking resistance such as bottle caps, box covers, caps, boxes, containers, trays, housewares, injection syringe parts and needles, toys.

TECHNICAL CHARACTERISTICS

	Parameter	Standard
1.	Density, kg/m ³ at 23 °C at 20 °C	958-965 960-966
2.	Melt flow index at 190 °C and load of 2.16 kg, g/10 min	6-9
3.	Melt flow index spread within a batch, %, maximum	±15
4.	Number of inclusions, pieces, maximum	10
5.	Melt Flow Ratio (MFI 21.6/MFI 2.16)	20-35
6.	Tensile yield strength, MPa, minimum	28
7.	Rupture strength, MPa, minimum	17
8.	Elongation at break, %, minimum	-
9.	Cracking resistance, hours, minimum	-
10.	Weight content of pellets less than 2 mm and more than 5 to 8 mm in size, %, maximum	1

Supply form: Pellets

Packing: Product is packed in polyethylene bags (one bag net weight 25.00±0.25kg) and stacked on flat pallets with shrink film. Maximum gross weight of a bundle is 2 tons.

Transportation: by all modes of transport.

Storage: polyethylene shall be stored in enclosed dry space preventing from direct sunlight on shelves or pallets at least 5 cm from the floor and at least 1 m from heaters, at temperature max 30°C, relative humidity max 80%.

Prior to processing bags with polymer shall be kept in production area for at least 12 hrs.

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HIGH DENSITY POLYETHYLENE GRADE 273-83

Blow molding

APPLICATION

Grade 273-83 is intended to manufacture of industrial-use articles by means of extrusion an extrusion blow moulding (e.g. tanks, cans with a capacity of 5-20 l, intermediate bulk containers with a capacity of up to 200 litres), of cultural- and household-use articles including articles in contact with food.

It can be used for manufacture of pipes and fittings, as well as for manufacture of various toys.

TECHNICAL CHARACTERISTICS

	Parameter	Standard
1.	Density, g/cm ³	0.950-0.955
2.	Melt flow index, g/cm ³	0.40-0.65
3.	Melt flow index spread within a batch, %, maximum	±10
4.	Number of inclusions, pieces,	5
5.	Weight content of ash, %, maximum	0.04
6.	Weight content of volatile substances, %, maximum	0.09
7.	Tensile yield strength, MPa (kg/cm ³), minimum	22.6 (230)
8.	Rupture strength, MPa (kg/cm ³), minimum	29.4 (300)
9.	Elongation at break, %, minimum	700

Supply form: Pellets

Packing: Product is packed in polyethylene bags (one bag net weight 25.00±0.25kg) and stacked on flat pallets with shrink film. Maximum gross weight of a bundle is 2 tons.

Transportation: by all modes of transport.

Storage: polyethylene shall be stored in enclosed dry space preventing from direct sunlight on shelves or pallets at least 5 cm from the floor and at least 1 m from heaters, at temperature max 30°C, relative humidity max 80%.

Prior to processing bags with polymer shall be kept in production area for at least 12 hrs.

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HIGH DENSITY POLYETHYLENE GRADE PE2NT74-15

Blow molding

APPLICATION

Grade PE2NT74-15 is intended for further processing by extrusion blow moulding method into domestic and industrial-use articles with a capacity of 3-20 litres such as flasks, water bottles, bottles for household chemistry and cosmetics.

TECHNICAL CHARACTERISTICS

	Parameter	Standard
1.	Density, kg/m ³ at 23 °C at 20 °C	946-953 949-955
2.	Melt flow index at 190 °C and load of 49 N (5kgf), g/10 min	1.5-2.0
3.	Melt flow index spread within a batch, %, maximum	-
4.	Number of inclusions, pieces, maximum	-
5.	Weight content of ash, %, maximum	-
6.	Weight content of volatile substances, %, maximum	-
7.	Tensile yield strength, MPa, minimum	26
8.	Rupture strength, MPa, minimum	30
9.	Elongation at break, %, minimum	750
10.	Cracking resistance, hours, minimum	60

Supply form: Pellets

Packing: Product is packed in polyethylene bags (one bag net weight 25.00±0.25kg) and stacked on flat pallets with shrink film. Maximum gross weight of a bundle is 2 tons.

Transportation: by all modes of transport.

Storage: polyethylene shall be stored in enclosed dry space preventing from direct sunlight on shelves or pallets at least 5 cm from the floor and at least 1 m from heaters, at temperature max 30°C, relative humidity max 80%.

Prior to processing bags with polymer shall be kept in production area for at least 12 hrs.

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HIGH DENSITY POLYETHYLENE GRADE PE2NT76-17

Blow molding **Film extrusion (blown)**

APPLICATION

Grade PE2NT76-17 is intended for further processing by extrusion blow moulding method into domestic and industrial-use articles with a capacity of up to 3 litres such as flasks, water bottles, bottles for household chemistry and cosmetics.

TECHNICAL CHARACTERISTICS

	Parameter	Standard
1.	Density, kg/m ³ at 23 °C at 20 °C	955-961 957-963
2.	Melt flow index at 190 °C and load of 49 N (5kgf), g/10 min	2.3-3.3
3.	Melt flow index spread within a batch, %, maximum	±10
4.	Number of inclusions, pieces, maximum	5
5.	Weight content of ash, %, maximum	0.03
6.	Weight content of volatile substances, %, maximum	0.09
7.	Tensile yield strength, MPa, minimum	26
8.	Rupture strength, MPa, minimum	30
9.	Elongation at break, %, minimum	750
10.	Cracking resistance, hours, minimum	30

Supply form: Pellets

Packing: Product is packed in polyethylene bags (one bag net weight 25.00±0.25kg) and stacked on flat pallets with shrink film. Maximum gross weight of a bundle is 2 tons.

Transportation: by all modes of transport.

Storage: polyethylene shall be stored in enclosed dry space preventing from direct sunlight on shelves or pallets at least 5 cm from the floor and at least 1 m from heaters, at temperature max 30°C, relative humidity max 80%.

Prior to processing bags with polymer shall be kept in production area for at least 12 hrs.

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HIGH DENSITY POLYETHYLENE GRADE 293-285D

Film extrusion

APPLICATION

Grade 293-285D is intended for processing by extrusion method into film of minimum 5 µm thickness used for cold food packaging and other purposes such as bags, various packages.

TECHNICAL CHARACTERISTICS

	Parameter	Standard
1.	Density, g/cm ³	0.943-0.949
2.	Melt flow index, g/10 min	0.4-0.7
3.	Melt flow index spread within a batch, %, maximum	±10
4.	Number of inclusions, pieces, maximum	3
5.	Weight content of ash, %, maximum	0.06
6.	Weight content of volatile substances, %, maximum	0.09
7.	Tensile yield strength, MPa, minimum	17
8.	Rupture strength, MPa, minimum	20.6
9.	Elongation at break, %, minimum	700

Supply form: Pellets

Packing: Product is packed in polyethylene bags (one bag net weight 25.00±0.25kg) and stacked on flat pallets with shrink film. Maximum gross weight of a bundle is 2 tons.

Transportation: by all modes of transport.

Storage: polyethylene shall be stored in enclosed dry space preventing from direct sunlight on shelves or pallets at least 5 cm from the floor and at least 1 m from heaters, at temperature max 30°C, relative humidity max 80%.

Prior to processing bags with polymer shall be kept in production area for at least 12 hrs.

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HIGH DENSITY POLYETHYLENE GRADE 273-285 D

Film extrusion

APPLICATION

Grade 273-285 D is intended for processing by extrusion method into film used for cold food packaging and other purposes such as bags, various packages.

TECHNICAL CHARACTERISTICS

	Parameter	Standard
1.	Density, g/cm ³	0.949-0.952
2.	Melt flow index, g/10 min	0.3-0.6
3.	Melt flow index spread within a batch, %, maximum	±10
4.	Number of inclusions, pieces, maximum	3
5.	Weight content of ash, %, maximum	0.04
6.	Weight content of volatile substances, %, maximum	0.09
7.	Tensile yield strength, MPa, minimum	19
8.	Rupture strength, MPa, minimum	21.6
9.	Elongation at break, %, minimum	700

Supply form: Pellets

Packing: Product is packed in polyethylene bags (one bag net weight 25.00±0.25kg) and stacked on flat pallets with shrink film. Maximum gross weight of a bundle is 2 tons.

Transportation: by all modes of transport.

Storage: polyethylene shall be stored in enclosed dry space preventing from direct sunlight on shelves or pallets at least 5 cm from the floor and at least 1 m from heaters, at temperature max 30°C, relative humidity max 80%.

Prior to processing bags with polymer shall be kept in production area for at least 12 hrs.

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POLYETHYLENE FOR CABLE INDUSTRY GRADE 271-274K

Cable extrusion

APPLICATION

Grade 217-274K is intended for extrusion of insulation and shielding of cables.

TECHNICAL CHARACTERISTICS

	Parameter	Standard
1.	Density, g/cm ³	0.950-0.955
2.	Melt flow index, g/10 min: at load of 2.16 kg at load of 5.0 kg	0.30-0.65
3.	Melt flow index spread within a batch, %, maximum	±10
4.	Number of inclusions, pieces, maximum	10
5.	Weight content of volatile substances, %, maximum	0.10
6.	Weight content of ash, %, maximum	0.050
7.	Stress cracking resistance, hours, minimum	500
8.	Tensile yield strength, MPa, minimum	22.6
9.	Rupture strength, MPa, minimum	21.6
10.	Elongation at break, %, minimum	700
11.	Weight content of extractable substances, %, maximum	Not specified
12.	Thermal oxidation resistance, hours, minimum	Not specified
13.	Photo-oxidation resistance, hours, minimum	Not specified

Supply form: Pellets

Packing: Product is packed in polyethylene bags (one bag net weight 25.00±0.25kg) and stacked on flat pallets with shrink film. Maximum gross weight of a bundle is 2 tons.

Transportation: by all modes of transport.

Storage: polyethylene shall be stored in enclosed dry space preventing from direct sunlight on shelves or pallets at least 5 cm from the floor and at least 1 m from heaters, at temperature max 30°C, relative humidity max 80%.

Prior to processing bags with polymer shall be kept in production area for at least 12 hrs.

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HIGH DENSITY POLYETHYLENE
TYPE PE 100 **GRADE PE2NT11-9**

Pipe extrusion

APPLICATION

Bimodal HDPE composition PE100 **Grade PE2NT11-9** is intended for production of pipes and fittings to gas distribution networks as well as pressure pipes and fittings to domestic water supply systems.

TECHNICAL CHARACTERISTICS

	Parameter	Standard
1.	Density, kg/m ³ at 23 °C at 20 °C	Minimum 930 956-962
2.	Thermal stability (oxidation induction time) ¹⁾ at 200 °C ²⁾ , min, minimum	20
3.	Melt flow index (MFI) at 190 °C, g/10 min a) at load of 212 N (21.6 kgf) б) at load of 49 N (5 kgf), minimum	6-8 0.12
4.	Melt flow index spread (MFI5) within a batch, %	±20
5.	Weight content of volatile substances ³⁾ , mg/kg	≤ 350
6.	Water content ⁴⁾ , mg/kg	≤ 300
7.	Weight content of carbon black, %, within limits	2.0-2.5
8.	Carbon black distribution ⁵⁾	Class ≤3, Type A.1,A.2,A.3 or B
9.	Gas condensate (gas components) resistance ⁶⁾ (at 80 °C and circular stress 2.0 MPa (on pipes d32 mm SDR 11), test duration of 20 h	Without destruction
10.	Resistance to rapid crack propagation (critical pressure pc, MPa) (e ≥ 20 mm) (dn: 225 mm SDR 11) for C=2 (strength factor)	MOP/2.4-0.072
11.	Resistance to slow crack propagation (dn:110 mm SDR 11) ⁷⁾ , test duration of 500 hours	Without destruction in the course of testing
12.	Tensile resistance of butt welded joint at 23 °C (dn:110 mm with SDR 11), failure mode	Ductile-compliant brittle-non-compliant
13.	Durability at constant internal pressure (confirmation of classification) at 20 °C on pipes d 32 mm with SDR 11 at initial stress, h, minimum 12.0 MPa 11.1 MPa	100 2500
14.	Classification (lower confidence limit of long-term durability), σ LCL, MPa	≥ 10

Notes:

- 1) Test atmosphere – oxygen, sample weight – (15 ± 2) mg.
- 2) it is permissible to carry out testing at 210 °C or 220 °C. In the event of disagreement, tests shall be carried out at 200 °C.
- 3) Test result is not a rejecting one.
- 4) Water content shall be determined if weight content of volatile substances exceeds the set standard.
At that, the difference between the obtained value of weight content of volatile substances and that of weight content of water shall not exceed 350 mg/kg. Requirement to water content in the composition is applied to the manufacturer at production stage, to the consumer – at processing stage (if water content exceeds the limiting value, then the material has to be dried prior to use).
- 5) In the event of disagreement, test samples shall be manufactured by pressing method.
- 6) 50% n-decane (98%) and 50% 1,3,5- trimethylbenzene by weight.
- 7) Internal pressure – 9.2 bar, test medium – water in water.

Note: Parameter 6 shall be determined by the processor when introducing polyethylene into production in order to make a decision on the necessity of preliminary drying and its modes. Test result is not a rejecting one.

Supply form: Pellets

Packing: Product is packed in polymer bags. The bags neck should be sealed on. Polycarbonates are also packaged in sealed soft containers for bulk solids. Packages should be tightly sewed. Polycarbonate weight in bag should be 25.00 ± 0.25 kg. In big-bag 750 ± 3.75 kg, 850 ± 4.25 kg, 1000 ± 5.0 kg.

Transportation: by all modes of transport.

Storage: Polycarbonates shall be stored in enclosed dry space preventing from direct sunlight on shelves or pallets at least 5 cm from the floor and at least 1 m from heaters, at temperature max 35°C.

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HIGH DENSITY POLYETHYLENE BIMODAL TYPE GRADE PE2NT11-285D

Pipe extrusion
Film extrusion

APPLICATION

Grade PE2NT11-285D is intended for production of pipes and fittings, including domestic water supply systems, compositions for marking stripes, blow-moulded articles as well as for production of heavy duty PE films with minimum thickness of 20 μm .

TECHNICAL CHARACTERISTICS

	Parameter	Standard
1.	Density, kg/m^3 at 23 °C at 20 °C	947-950 949-952
2.	Melt flow index at 190 °C and at load of 21.6 kgf, g/10 min	6-11
3.	Melt flow index spread (MFI _{21,6}) within a batch, %, maximum	± 10
4.	Tensile yield strength, MPa, minimum	20
5.	Elongation at break, %, minimum	600
6.	Weight content of volatile substances, mg/kg, maximum	350
7.	Thermal stability at 200 °C, min, minimum	20
8.	Durability at constant internal pressure at 80 °C, at initial stress in pipe wall 4.0 MPa (on pipes d110 SDR 11), h, minimum	165
9.	Durability at constant internal pressure at 80 °C, at initial stress in pipe wall 2.8 MPa (on pipes d110 SDR 11), h, minimum	1000
10.	Durability at constant internal pressure at 20 °C on pipes d32 mm SDR 11 at initial stress, h, minimum 12.4 MPa 11.6 MPa	100 2500

Note: Parameter 6 shall be determined by the processor when introducing polyethylene into production in order to make a decision on the necessity of preliminary drying and its modes. Test result is not a rejecting one.

Supply form: Pellets

Packing: Product is packed in polymer bags. The bags neck should be sealed on. Polycarbonates are also packaged in sealed soft containers for bulk solids. Packages should be tightly sewed. Polycarbonate weight in bag should be 25.00 ± 0.25 kg. In big-bag 750 ± 3.75 kg, 850 ± 4.25 kg, 1000 ± 5.0 kg.

Transportation: by all modes of transport.

Storage: Polycarbonates shall be stored in enclosed dry space preventing from direct sunlight on shelves or pallets at least 5 cm from the floor and at least 1 m from heaters, at temperature max 35°C.

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LINEAR LOW DENSITY POLYETHYLENE GRADE PE2NT15-11

Film extrusion (blown)

APPLICATION

Linear polyethylene **Grade PE2NT15-11** is intended for production of packing stretch film by blown extrusion, for bags and inserts.

Intended for contact with cold food products.

TECHNICAL CHARACTERISTICS

	Parameter	Standard
1.	Density, kg/m ³ at 23 °C at 20 °C	0.918-0.923 0.920-0.925
2.	Melt flow index at 190 °C and load of 2.16 kg, g/10 min	0.7-1.5
3.	Melt flow index spread within a batch, %, maximum	±10
4.	Number of inclusions, pieces, maximum	8
5.	Melt Flow Ratio (MFI 21.6/MFI 2.16)	20-35
6.	Tensile yield strength, MPa, minimum	9
7.	Rupture strength, MPa, minimum	22
8.	Elongation at break, %, minimum	700
9.	Weight content of pellets less than 2 mm and more than 5 to 8 mm in size, %, maximum	1

Supply form: Pellets

Packing: Product is packed in polymer bags. The bags neck should be sealed on. Polycarbonates are also packaged in sealed soft containers for bulk solids. Packages should be tightly sewed. Polycarbonate weight in bag should be 25.00±0.25 kg. In big-bag 750±3.75 kg, 850±4.25 kg, 1000±5.0 kg.

Transportation: by all modes of transport.

Storage: Polycarbonates shall be stored in enclosed dry space preventing from direct sunlight on shelves or pallets at least 5 cm from the floor and at least 1 m from heaters, at temperature max 35°C.

Information contained herein is provided to the best of our knowledge and is considered true on the revision date. This specification does not release a customer from obligation to check the product as to suitability thereof for the intended application. A producer shall not be liable for any loss and damage that might occur due to use of this information.



LINEAR LOW DENSITY POLYETHYLENE GRADE PE2NT16-11

Film extrusion (cast)

APPLICATION

Linear polyethylene **Grade PE2NT16-11** is intended for production of packing stretch film by blown extrusion, for bags and inserts.

Intended for contact with cold food products.

TECHNICAL CHARACTERISTICS

	Parameter	Standard
1.	Density, kg/m ³ at 23 °C at 20 °C	0.918-0.923 0.920-0.925
2.	Melt flow index at 190 °C and load of 2.16 kg, g/10 min	2.8-3.5
3.	Melt flow index spread within a batch, %, maximum	±10
4.	Number of inclusions, pieces, maximum	8
5.	Melt Flow Ratio (MFI 21.6/MFI 2.16)	20-35
6.	Tensile yield strength, MPa, minimum	9
7.	Rupture strength, MPa, minimum	16
8.	Elongation at break, %, minimum	750
9.	Weight content of pellets less than 2 mm and more than 5 to 8 mm in size, %, maximum	1

Supply form: Pellets

Packing: Product is packed in polymer bags. The bags neck should be sealed on. Polycarbonates are also packaged in sealed soft containers for bulk solids. Packages should be tightly sewed. Polycarbonate weight in bag should be 25.00±0.25 kg. In big-bag 750±3.75 kg, 850±4.25 kg, 1000±5.0 kg.

Transportation: by all modes of transport.

Storage: Polycarbonates shall be stored in enclosed dry space preventing from direct sunlight on shelves or pallets at least 5 cm from the floor and at least 1 m from heaters, at temperature max 35°C.

Information contained herein is provided to the best of our knowledge and is considered true on the revision date. This specification does not release a customer from obligation to check the product as to suitability thereof for the intended application. A producer shall not be liable for any loss and damage that might occur due to use of this information.

LINEAR LOW DENSITY POLYETHYLENE GRADE PE2NT17-11

Film extrusion (blown)

APPLICATION

Linear polyethylene **Grade PE2NT17-11** is intended for production of packing stretch film by blown extrusion, for bags and inserts.

Intended for contact with cold food products.

TECHNICAL CHARACTERISTICS

	Parameter	Standard
1.	Density, kg/m ³ at 23 °C at 20 °C	0.918-0.923 0.920-0.925
2.	Melt flow index at 190 °C and load of 2.16 kg, g/10 min	1.5-2.4
3.	Melt flow index spread within a batch, %, maximum	±10
4.	Number of inclusions, pieces, maximum	8
5.	Melt Flow Ratio (MFI 21.6/MFI 2.16)	20-35
6.	Tensile yield strength, MPa, minimum	9
7.	Rupture strength, MPa, minimum	20
8.	Elongation at break, %, minimum	700
9.	Weight content of pellets less than 2 mm and more than 5 to 8 mm in size, %, maximum	1

Supply form: Pellets

Packing: Product is packed in polymer bags. The bags neck should be sealed on. Polycarbonates are also packaged in sealed soft containers for bulk solids. Packages should be tightly sewed. Polycarbonate weight in bag should be 25.00±0.25 kg. In big-bag 750±3.75 kg, 850±4.25 kg, 1000±5.0 kg.

Transportation: by all modes of transport.

Storage: Polycarbonates shall be stored in enclosed dry space preventing from direct sunlight on shelves or pallets at least 5 cm from the floor and at least 1 m from heaters, at temperature max 35°C.

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**METALLOCENE LINEAR LOW DENSITY
POLYETHYLENE GRADE F2010M**
Film extrusion (blown)
APPLICATION

Polyethylene composition **Grade F2010M** is intended for further processing by blown-extrusion method into films of various thicknesses for packing purposes, storage and transportation of goods (articles), for manufacture of bags to be operated under severe conditions. Films manufactured from polyethylene Grade F2010M feature high tensile strength and high anti-puncture resistance.

TECHNICAL CHARACTERISTICS

	Parameter	Standard
1.	Density at 20 °C, kg/m ³	918-925 (target - 920)
2.	Melt flow index at load of 2.16 kgf, g/10 min	0.7÷1.3 (target – 1.0)
3.	Melt flow index spread within a batch, %, maximum	10
4.	Number of inclusions, pieces, maximum	10
5.	Tensile yield strength, MPa, minimum	9
6.	Rupture strength, MPa, minimum	27
7.	Elongation at break, %, minimum	600

Note: Parameter 6 shall be determined by the processer when introducing polyethylene into production in order to make a decision on the necessity of preliminary drying and its modes. Test result is not a rejecting one.

Supply form: Pellets

Packing: Product is packed in polymer bags. The bags neck should be sealed on. Polycarbonates are also packaged in sealed soft containers for bulk solids. Packages should be tightly sewed. Polycarbonate weight in bag should be 25.00±0.25 kg. In big-bag 750±3.75 kg, 850±4.25 kg, 1000±5.0 kg.

Transportation: by all modes of transport.

Storage: Polycarbonates shall be stored in enclosed dry space preventing from direct sunlight on shelves or pallets at least 5 cm from the floor and at least 1 m from heaters, at temperature max 35°C.

Information contained herein is provided to the best of our knowledge and is considered true on the revision date. This specification does not release a customer from obligation to check the product as to suitability thereof for the intended application. A producer shall not be liable for any loss and damage that might occur due to use of this information.

METALLOCENE LINEAR LOW DENSITY POLYETHYLENE **GRADE F2030M**

Film extrusion (cast)

APPLICATION

Polyethylene composition **Grade F2030M** is intended for further processing by blown-extrusion method into films of various thicknesses for packing purposes, storage and transportation of goods (articles), for manufacture of bags to be operated under severe conditions. Films manufactured from polyethylene Grade F2030M feature high tensile strength and high anti-puncture resistance.

TECHNICAL CHARACTERISTICS

	Parameter	Standard
1.	Density at 20 °C, kg/m ³	918-922 (target - 920)
2.	Melt flow index at load of 2.16 kgf, g/10 min	2.6-3.4 (target - 3.0)
3.	Melt flow index spread within a batch, %, maximum	10
4.	Number of inclusions, pieces, maximum	10
5.	Tensile yield strength, MPa, minimum	9
6.	Rupture strength, MPa, minimum	27
7.	Elongation at break, %, minimum	600

Note: Parameter 6 shall be determined by the processer when introducing polyethylene into production in order to make a decision on the necessity of preliminary drying and its modes. Test result is not a rejecting one.

Supply form: Pellets

Packing: Product is packed in polymer bags. The bags neck should be sealed on. Polycarbonates are also packaged in sealed soft containers for bulk solids. Packages should be tightly sewed. Polycarbonate weight in bag should be 25.00±0.25 kg. In big-bag 750±3.75 kg, 850±4.25 kg, 1000±5.0 kg.

Transportation: by all modes of transport.

Storage: Polycarbonates shall be stored in enclosed dry space preventing from direct sunlight on shelves or pallets at least 5 cm from the floor and at least 1 m from heaters, at temperature max 35°C.

Information contained herein is provided to the best of our knowledge and is considered true on the revision date. This specification does not release a customer from obligation to check the product as to suitability thereof for the intended application. A producer shall not be liable for any loss and damage that might occur due to use of this information.



POLYETHYLENE GRADE F3205

Film extrusion (blown)

APPLICATION

Polyethylene composition **Grade F3205** is designed for extrusion with blowing of film of different thickness for packing, storage, transportation of goods (items), manufacture of bags operated in heavy duty conditions. Polyethylene F3205 grade is characterized by medium density and high strength.

Designation of polyethylene F3205 grade for ordering and in other documentation shall include the letter F – that means recommended polyethylene application during processing (film extrusion), and four numbers – first two numbers correspond to average value of density (32 – 932 kg/m³), two following numbers correspond to average 10-fold value of MFI at load of 2.16kgf (05 – 0.5g/10min), and two numbers of Terms of Reference that designates the composition was produced as per exact Terms of Reference.

TECHNICAL CHARACTERISTICS

	Parameter	Standard
1.	Density at 20 °C, g/cm ³	0.930 – 0.934
2.	Melt Flow Index at 2.16 kgf, g/10 min	0.3 – 0.7
3.	Melt Flow Index Range within the Batch, %, maximum	10
4.	Number of Inclusions, pcs, maximum	10
5.	Tensile Strength at Yield, MPa, minimum	14
6.	Tensile Stress at Break, MPa, minimum	24
7.	Breaking Elongation, %, minimum	650

Supply form: Pellets

Packing: Product is packed in polymer bags. The bags neck should be sealed on. Polycarbonates are also packaged in sealed soft containers for bulk solids. Packages should be tightly sewed. Polycarbonate weight in bag should be 25.00±0.25 kg. In big-bag 750±3.75 kg, 850±4.25 kg, 1000±5.0 kg.

Transportation: by all modes of transport.

Storage: Polycarbonates shall be stored in enclosed dry space preventing from direct sunlight on shelves or pallets at least 5 cm from the floor and at least 1 m from heaters, at temperature max 35°C.

Information contained herein is provided to the best of our knowledge and is considered true on the revision date. This specification does not release a customer from obligation to check the product as to suitability thereof for the intended application. A producer shall not be liable for any loss and damage that might occur due to use of this information.



POLYETHYLENE
GRADE F2708

Film extrusion (blown)

APPLICATION

Polyethylene composition **Grade F2708** is designed for extrusion with blowing of film of different thickness for packing, storage, transportation of goods (items), manufacture of bags operated in heavy duty conditions. Films made of polyethylene F2708 grade are characterized by high tensile strength and high puncture resistance.

TECHNICAL CHARACTERISTICS

	Parameter	Standard
1.	Density at 20°C, g/cm ³	0.925-0.929
2.	Melt Flow Index at 2.16 kgf, g/10 min	0.5 – 1.1
3.	Melt Flow Index Range within the Batch, %, maximum	10
4.	Number of Inclusions, pcs, maximum	10
5.	Tensile Strength at Yield, MPa, minimum	10
6.	Tensile Stress at Break, MPa, minimum	25
7.	Breaking Elongation, %, minimum	700

Supply form: Pellets

Packing: Product is packed in polymer bags. The bags neck should be sealed on. Polycarbonates are also packaged in sealed soft containers for bulk solids. Packages should be tightly sewed. Polycarbonate weight in bag should be 25.00±0.25 kg. In big-bag 750±3.75 kg, 850±4.25 kg, 1000±5.0 kg.

Transportation: by all modes of transport.

Storage: Polycarbonates shall be stored in enclosed dry space preventing from direct sunlight on shelves or pallets at least 5 cm from the floor and at least 1 m from heaters, at temperature max 35°C.

Information contained herein is provided to the best of our knowledge and is considered true on the revision date. This specification does not release a customer from obligation to check the product as to suitability thereof for the intended application. A producer shall not be liable for any loss and damage that might occur due to use of this information.



LOW DENSITY POLYETHYLENE GRADE 11503-070

Film extrusion

APPLICATION

Grade 11503-070 is intended for food contact, for manufacture of toys and articles approved for packing and sealing of medicines. To be used for covering the articles allowed for food contact, for lamination by extrusion of such materials as paper, aluminium foil, cardboard etc. To be used as well for casting of small-sized articles (covers, caps, toys).

TECHNICAL CHARACTERISTICS

	Parameter	Standard
1.	Density, g/cm ³	0.9180±0.001
2.	Melt flow index ((nominal value) with a tolerance), %, g/10 min	7.0±15
3.	Melt flow index spread within a batch, %, maximum	±5
4.	Number of inclusions, pieces, maximum	2
5.	Tensile yield strength, MPa, minimum	9.3
6.	Rupture strength, MPa, minimum	9.8
7.	Elongation at break, %, minimum	450

Supply form: Pellets

Packing: Product is packed in polyethylene bags (one bag net weight 25.00±0.25kg) and stacked on flat pallets with shrink film. Maximum gross weight of a bundle is 2 tons.

Transportation: by all modes of transport.

Storage: polyethylene shall be stored in enclosed dry space preventing from direct sunlight on shelves or pallets at least 5 cm from the floor and at least 1 m from heaters, at temperature max 30°C, relative humidity max 80%.

Prior to processing bags with polymer shall be kept in production area for at least 12 hrs.

Information contained herein is provided to the best of our knowledge and is considered true on the revision date. This specification does not release a customer from obligation to check the product as to suitability thereof for the intended application. A producer shall not be liable for any loss and damage that might occur due to use of this information.



LOW DENSITY POLYETHYLENE GRADE LA2175

Extrusion coating and lamination

APPLICATION

Grade LA2175 is intended for national economy needs, for manufacture of general purpose films, bags and packages, thin films and film products, shrinkable films, films for food contact (including air-tight packing), for high-speed lamination by extrusion of such materials as paper, aluminium foil, cardboard etc. To be used as well for casting of small-sized articles (covers, caps, toys) and articles approved for packing and sealing of medicines.

TECHNICAL CHARACTERISTICS TECHNICAL CHARACTERISTICS

	Parameter	Standard
1.	Density, g/cm ³	0.918-0.923
2.	Melt flow index ((nominal value) with a tolerance), %, g/10 min	6.5±8.5
3.	Melt flow index spread within a batch, %, maximum	±5
4.	Number of inclusions, pieces, maximum	2
5.	Tensile yield strength, MPa, minimum	8.0
6.	Rupture strength, MPa, minimum	9.0
7.	Elongation at break, %, minimum	400
8.	Dynamic modulus of elasticity, Pa	95-110
9.	Zero-shear rate viscosity, Pa.s	3500-4500
10.	Mass fraction of extractable substances, %, maximum	0.30

Supply form: Pellets

Packing: Product is packed in polyethylene bags (one bag net weight 25.00±0.25kg) and stacked on flat pallets with shrink film. Maximum gross weight of a bundle is 2 tons.

Transportation: by all modes of transport.

Storage: polyethylene shall be stored in enclosed dry space preventing from direct sunlight on shelves or pallets at least 5 cm from the floor and at least 1 m from heaters, at temperature max 30°C, relative humidity max 80%.

Prior to processing bags with polymer shall be kept in production area for at least 12 hrs.

Information contained herein is provided to the best of our knowledge and is considered true on the revision date. This specification does not release a customer from obligation to check the product as to suitability thereof for the intended application. A producer shall not be liable for any loss and damage that might occur due to use of this information.



LOW DENSITY POLYETHYLENE GRADE 10803-020

Film extrusion ***Injection molding***

APPLICATION

Grade 10803-020 is intended for manufacture of films and film products for general purpose (industrial films for greenhouse covering and other agricultural needs), films for food contact (including air-tight packing), bags, packages; allowed for food contact, for manufacture of toys and articles approved for packing and sealing of medicines.

TECHNICAL CHARACTERISTICS

	Parameter	Standard
1.	Density, g/cm ³	0.9185±0.0015
2.	Melt flow index ((nominal value) with a tolerance), %, g/10 min	2.0±10
3.	Melt flow index spread within a batch, %, maximum	±5
4.	Number of inclusions, pieces, maximum	2
5.	Stress cracking resistance, hours, minimum	2
6.	Tensile yield strength, MPa, minimum	9.3
7.	Rupture strength, MPa, minimum	12.2
8.	Elongation at break, %, minimum	550

Supply form: Pellets

Packing: Product is packed in polyethylene bags (one bag net weight 25.00±0.25kg) and stacked on flat pallets with shrink film. Maximum gross weight of a bundle is 2 tons.

Transportation: by all modes of transport.

Storage: polyethylene shall be stored in enclosed dry space preventing from direct sunlight on shelves or pallets at least 5 cm from the floor and at least 1 m from heaters, at temperature max 30°C, relative humidity max 80%.

Prior to processing bags with polymer shall be kept in production area for at least 12 hrs.

Information contained herein is provided to the best of our knowledge and is considered true on the revision date. This specification does not release a customer from obligation to check the product as to suitability thereof for the intended application. A producer shall not be liable for any loss and damage that might occur due to use of this information.

LOW DENSITY POLYETHYLENE GRADE 15313-003

Film extrusion

APPLICATION

Grade 15313-003 is intended for manufacture of thin films and film products, shrinkable films, films for food contact (including air-tight packing), general purpose films, bags and packages. To be used for covering the articles allowed for food contact, for manufacture of pipes and fittings allowed for cold domestic water supply.

TECHNICAL CHARACTERISTICS

	Parameter	Standard
1.	Density, g/cm ³	0.9205±0,0015
2.	Melt flow index((nominal value) with a tolerance), %, g/10 min	0.3±30
3.	Melt flow index spread within a batch, %, maximum	±6
4.	Number of inclusions, pieces, maximum	2
5.	Stress cracking resistance, hours, minimum	500
6.	Tensile yield strength, MPa, minimum	9.8
7.	Rupture strength, MPa, minimum	13.7
8.	Elongation at break, %, minimum	600

Supply form: Pellets

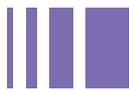
Packing: Product is packed in polyethylene bags (one bag net weight 25.00±0.25kg) and stacked on flat pallets with shrink film. Maximum gross weight of a bundle is 2 tons.

Transportation: by all modes of transport.

Storage: polyethylene shall be stored in enclosed dry space preventing from direct sunlight on shelves or pallets at least 5 cm from the floor and at least 1 m from heaters, at temperature max 30°C, relative humidity max 80%.

Prior to processing bags with polymer shall be kept in production area for at least 12 hrs.

Information contained herein is provided to the best of our knowledge and is considered true on the revision date. This specification does not release a customer from obligation to check the product as to suitability thereof for the intended application. A producer shall not be liable for any loss and damage that might occur due to use of this information.



LOW DENSITY POLYETHYLENE GRADE 15813-020

Film extrusion ***Injection molding***

APPLICATION

Grade 15813-020 is intended for manufacture of products, allowed for food contact, for manufacture of toys. To be used for manufacture of medical accessories, assemblies and parts of medical equipment, devices and tools, allowed for body tissue contact including for internal prosthetics.

TECHNICAL CHARACTERISTICS

	Parameter	Standard
1.	Density, g/cm ³	0.9190±0.002
2.	Melt flow index ((nominal value) with a tolerance), %, g/10 min	2.0±25
3.	Melt flow index spread within a batch, %, maximum	±6
4.	Number of inclusions, pieces, maximum	2
5.	Tensile yield strength, MPa, minimum	9.3
6.	Rupture strength, MPa, minimum	11.3
7.	Elongation at break, %, minimum	600
8.	Mass fraction of extractable substances, %, maximum	0.4

Supply form: Pellets

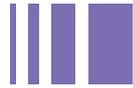
Packing: Product is packed in polyethylene bags (one bag net weight 25.00±0.25kg) and stacked on flat pallets with shrink film. Maximum gross weight of a bundle is 2 tons.

Transportation: by all modes of transport.

Storage: polyethylene shall be stored in enclosed dry space preventing from direct sunlight on shelves or pallets at least 5 cm from the floor and at least 1 m from heaters, at temperature max 30°C, relative humidity max 80%.

Prior to processing bags with polymer shall be kept in production area for at least 12 hrs.

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LOW DENSITY POLYETHYLENE GRADE FA2004

Film extrusion **Cable extrusion**

APPLICATION

Grade FA2004 is intended for manufacture of single-layer and multi-layer packing films; shrinkable films; films of various application 50 µm and more; protective covering with long service life and high cracking resistance; for usage in compositions in order to increase rigidity and cracking resistance of end products; for manufacture of products of various application in contact with food.

TECHNICAL CHARACTERISTICS TECHNICAL CHARACTERISTICS

	Parameter	Standard
1.	Density, g/cm ³	0.917÷0.922
2.	Melt flow index, g/10 min, within the limits	0.25÷0.49
3.	Melt flow index spread within a batch, %, maximum	±6
4.	Number of inclusions, pieces, maximum	2
5.	Stress cracking resistance, hours, minimum	500
6.	Tensile yield strength, MPa, minimum	9.5
7.	Rupture strength, MPa, minimum	13.0
8.	Elongation at break, %, minimum	500

Supply form: Pellets

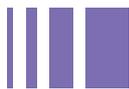
Packing: Product is packed in polyethylene bags (one bag net weight 25.00±0.25kg) and stacked on flat pallets with shrink film. Maximum gross weight of a bundle is 2 tons.

Transportation: by all modes of transport.

Storage: polyethylene shall be stored in enclosed dry space preventing from direct sunlight on shelves or pallets at least 5 cm from the floor and at least 1 m from heaters, at temperature max 30°C, relative humidity max 80%.

Prior to processing bags with polymer shall be kept in production area for at least 12 hrs.

Information contained herein is provided to the best of our knowledge and is considered true on the revision date. This specification does not release a customer from obligation to check the product as to suitability thereof for the intended application. A producer shall not be liable for any loss and damage that might occur due to use of this information.



LOW DENSITY POLYETHYLENE GRADE FA2007

Film extrusion ***Injection molding***

APPLICATION

Low-density polyethylene **Grade FA2007** is designated for manufacture of film products, for processing by injection molding and extrusion.

TECHNICAL CHARACTERISTICS

	Parameter	Standard
1.	Density, g/cm ³	0.917÷0.922
2.	Melt Flow Index, g/10 min, (at 190 °C and at load of 2.16 kg)	0.60÷0.80
3.	Melt Flow Index Range within the Batch, %, maximum	± 10
4.	Tensile Strength at Yield, MPa, minimum	9.0
5.	Tensile Stress at Break, MPa, minimum	12.0
6.	Elongation at Break, %, minimum	500
7.	Mass fraction of extractable substances, %, maximum	0.8
8.	Number of impurities, pcs, maximum	5

Supply form: Pellets

Packing: Product is packed in polyethylene bags (one bag net weight 25.00±0.25kg) and stacked on flat pallets with shrink film. Maximum gross weight of a bundle is 2 tons.

Transportation: by all modes of transport.

Storage: polyethylene shall be stored in enclosed dry space preventing from direct sunlight on shelves or pallets at least 5 cm from the floor and at least 1 m from heaters, at temperature max 30°C, relative humidity max 80%.

Prior to processing bags with polymer shall be kept in production area for at least 12 hrs.

Information contained herein is provided to the best of our knowledge and is considered true on the revision date. This specification does not release a customer from obligation to check the product as to suitability thereof for the intended application. A producer shall not be liable for any loss and damage that might occur due to use of this information.

LOW DENSITY POLYETHYLENE GRADE 10204-003

Film extrusion ***Cable extrusion***

APPLICATION

Grade 10204-003 is designated for manufacture of film products, for processing by injection molding and extrusion, protective covering with long service life and high cracking resistance; for usage in compositions in order to increase rigidity and cracking resistance of end products; for manufacture of products of various application in contact with food.

TECHNICAL CHARACTERISTICS

	Parameter	Standard
1.	Density, g/cm ³	0.9230 ± 0.001
2.	Melt flow index ((nominal value) with a tolerance), %, g/10 min	0.3±15
3.	Melt flow index spread within a batch, %, maximum	±5
4.	Number of inclusions, pieces, maximum	2
5.	Stress cracking resistance, hours, minimum	500
6.	Tensile yield strength, MPa, minimum	11.3
7.	Rupture strength, MPa, minimum	14.7
8.	Elongation at break, %, minimum	600

Supply form: Pellets

Packing: Product is packed in polyethylene bags (one bag net weight 25.00±0.25kg) and stacked on flat pallets with shrink film. Maximum gross weight of a bundle is 2 tons.

Transportation: by all modes of transport.

Storage: polyethylene shall be stored in enclosed dry space preventing from direct sunlight on shelves or pallets at least 5 cm from the floor and at least 1 m from heaters, at temperature max 30°C, relative humidity max 80%.

Prior to processing bags with polymer shall be kept in production area for at least 12 hrs.

Information contained herein is provided to the best of our knowledge and is considered true on the revision date. This specification does not release a customer from obligation to check the product as to suitability thereof for the intended application. A producer shall not be liable for any loss and damage that might occur due to use of this information.



LOW DENSITY POLYETHYLENE GRADE 153-02K

Cable extrusion

APPLICATION

Polyethylene composition **Grade 153-02K** is intended for application of insulation, sheaths and protective covering to wires and cables by means of extrusion.

TECHNICAL CHARACTERISTICS

	Parameter	Standard
1.	Density, g/cm ³	0.919÷0.922
2.	Melt flow index, g/10 min, at load of 2.16 kgf within the limits	0.21÷0.39
3.	Melt flow index spread within a batch, %, maximum	±8
4.	Thermo-oxidative stability, hour, minimum	8
5.	Photo-oxidative stability, hour, minimum	500
6.	Stress cracking resistance, hours, minimum	1000
7.	Tensile yield strength, MPa, minimum	9.8
8.	Rupture strength, MPa, minimum	13.7
9.	Elongation at break, %, minimum	600

Supply form: Pellets

Packing: Product is packed in polyethylene bags (one bag net weight 25.00±0.25kg) and stacked on flat pallets with shrink film. Maximum gross weight of a bundle is 2 tons.

Transportation: by all modes of transport.

Storage: polyethylene shall be stored in enclosed dry space preventing from direct sunlight on shelves or pallets at least 5 cm from the floor and at least 1 m from heaters, at temperature max 30°C, relative humidity max 80%.

Prior to processing bags with polymer shall be kept in production area for at least 12 hrs.

Information contained herein is provided to the best of our knowledge and is considered true on the revision date. This specification does not release a customer from obligation to check the product as to suitability thereof for the intended application. A producer shall not be liable for any loss and damage that might occur due to use of this information.

LOW DENSITY POLYETHYLENE GRADE 153-10K

Cable extrusion

APPLICATION

Polyethylene composition **Grade 153-10K** is intended for application of insulation, sheaths and protective covering to wires and cables by means of extrusion.

TECHNICAL CHARACTERISTICS

	Parameter	Standard
1.	Density, g/cm ³	Not specified
2.	Melt flow index, g/10 min, at load of 2.16 kgf within the limits	0.21÷0.39
3.	Melt flow index spread within a batch, %, maximum	±8
4.	Thermo-oxidative stability, hour, minimum	8
5.	Photo-oxidative stability, hour, minimum	500
6.	Stress cracking resistance, hours, minimum	1000
7.	Tensile yield strength, MPa, minimum	9.8
8.	Rupture strength, MPa, minimum	13.7
9.	Elongation at break, %, minimum	600

Supply form: Pellets

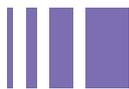
Packing: Product is packed in polyethylene bags (one bag net weight 25.00±0.25kg) and stacked on flat pallets with shrink film. Maximum gross weight of a bundle is 2 tons.

Transportation: by all modes of transport.

Storage: polyethylene shall be stored in enclosed dry space preventing from direct sunlight on shelves or pallets at least 5 cm from the floor and at least 1 m from heaters, at temperature max 30°C, relative humidity max 80%.

Prior to processing bags with polymer shall be kept in production area for at least 12 hrs.

Information contained herein is provided to the best of our knowledge and is considered true on the revision date. This specification does not release a customer from obligation to check the product as to suitability thereof for the intended application. A producer shall not be liable for any loss and damage that might occur due to use of this information.



LOW DENSITY POLYETHYLENE GRADE CA0004

Cable extrusion

APPLICATION

Grade CA0004 is intended for manufacture of cable products with improved performance properties due to processing additive and enhanced stabilization system for protection against thermal oxidation and photo-oxidation; for application of sheath, insulation and protective covering to cables by means of extrusion. Featuring increased cracking resistance.

TECHNICAL CHARACTERISTICS

	Parameter	Standard
1.	Melt Flow Index, g/10 min, (at 190 °C and at load of 2.16 kg)	0.25÷0.50
2.	Melt flow index spread within a batch, %, maximum	± 12
3.	Tensile yield strength, MPa, minimum	9.0
4.	Rupture strength, MPa, minimum	12.0
5.	Elongation at break, %, minimum	500
6.	Mass fraction of extractable substances, %, maximum	0.9
7.	Stress cracking resistance, hours, minimum	500
8.	Thermal oxidation resistance, hours, minimum	8
9.	Photo-oxidation resistance, hours, minimum	500

Supply form: Pellets

Packing: Product is packed in polyethylene bags (one bag net weight 25.00±0.25kg) and stacked on flat pallets with shrink film. Maximum gross weight of a bundle is 2 tons.

Transportation: by all modes of transport.

Storage: polyethylene shall be stored in enclosed dry space preventing from direct sunlight on shelves or pallets at least 5 cm from the floor and at least 1 m from heaters, at temperature max 30°C, relative humidity max 80%.

Prior to processing bags with polymer shall be kept in production area for at least 12 hrs.

Information contained herein is provided to the best of our knowledge and is considered true on the revision date. This specification does not release a customer from obligation to check the product as to suitability thereof for the intended application. A producer shall not be liable for any loss and damage that might occur due to use of this information.

POLYCARBONATE GRADE PC-005

Extrusion and injection molding High viscosity

APPLICATION

Grade PC-005 is intended for manufacturing of industrial-used products by extrusion and injection molding, such as locking panels and articles in contact with food and drinking water.

TECHNICAL CHARACTERISTICS

	Parameter	Standard
1.	Melt flow index, g/10 min, at 1.2 kgf load, 300 °C	5.0±1.0
2.	Melt flow index spread within a batch, %, maximum	All spot samples shall comply with value 1
3.	Number of visible impurities (inclusions), balls/100g, maximum	5
4.	Haze, %, maximum	0.8
5.	Transmission factor, %, minimum	89
6.	Tensile yield strength, MPa, minimum	60
7.	Elongation at break, %, minimum	120
8.	Cross-bending stress at max. sample load, MPa, minimum	90
9.	Flexural modulus, MPa, minimum	2250
10.	Izod impact strength, kJ/m ² , minimum	75
11.	Compression stress at yield, MPa, minimum	76
12.	Vicat softening temperature, °C, minimum	150
13.	Yellowness and blueness index	1.6-2.2
	for PC - L	1.3-1.6
	for PC - L1	0.8-1.3
14.	Transparency and brightness index, minimum	90

Note: Description of additional indices to base grades as follows: U – ultraviolet stabilized grades; R- improved antistick properties; L, L1 – low b* (yellowness and blue) index value: 1.3 – 1.6; 0.8-1.3
Norms and requirements for PC quality parameters with additional are the same as for PC grades without additional indices.

Supply form: Pellets

Packing: Product is packed in polymer bags. The bags neck should be sealed on. Polycarbonates are also packaged in sealed soft containers for bulk solids. Packages should be tightly sewed. Polycarbonate weight in bag should be 25.00±0.25 kg. In big-bag 750±3.75 kg, 850±4.25 kg, 1000±5.0 kg.

Transportation: by all modes of transport.

Storage: Polycarbonates shall be stored in enclosed dry space preventing from direct sunlight on shelves or pallets at least 5 cm from the floor and at least 1 m from heaters, at temperature max 35°C.

Information contained herein is provided to the best of our knowledge and is considered true on the revision date. This specification does not release a customer from obligation to check the product as to suitability thereof for the intended application. A producer shall not be liable for any loss and damage that might occur due to use of this information.



POLYCARBONATE GRADE PC-007

Extrusion and injection molding High viscosity

APPLICATION

Grade PC-007 is intended for the manufacture of products for technical and construction purposes, including cellular polycarbonate sheets for greenhouses, monolithic polycarbonate sheets for roofs, facades, noise screens, safety glazing and fencing, and products in contact with food and drinking water.

TECHNICAL CHARACTERISTICS

	Parameter	Standard
1.	Melt flow index, g/10 min, at 1.2 kgf load, 300 °C	6.5±1.0
2.	Melt flow index spread within a batch, %, maximum	All spot samples shall comply with value 1
3.	Number of visible impurities (inclusions), balls/100g, maximum	5
4.	Haze, %, maximum	0.8
5.	Transmission factor, %, minimum	89
6.	Tensile yield strength, MPa, minimum	60
7.	Elongation at break, %, minimum	120
8.	Cross-bending stress at max. sample load, MPa, minimum	90
9.	Flexural modulus, MPa, minimum	2250
10.	Izod impact strength, kJ/m ² , minimum	75
11.	Compression stress at yield, MPa, minimum	76
12.	Vicat softening temperature, °C, minimum	150
13.	Yellowness and blueness index	1.6-2.2
	for PC - L	1.3-1.6
	for PC - L1	0.8-1.3
14.	Transparency and brightness index, minimum	90

Note: Description of additional indices to base grades as follows: U – ultraviolet stabilized grades; R- improved antistick properties; L, L1 – low b* (yellowness and blue) index value: 1.3 – 1.6; 0.8-1.3

Norms and requirements for PC quality parameters with additional are the same as for PC grades without additional indices.

Supply form: Pellets

Packing: Product is packed in polymer bags. The bags neck should be sealed on. Polycarbonates are also packaged in sealed soft containers for bulk solids. Packages should be tightly sewed. Polycarbonate weight in bag should be 25.00±0.25 kg. In big-bag 750±3.75 kg, 850±4.25 kg, 1000±5.0 kg.

Transportation: by all modes of transport.

Storage: Polycarbonates shall be stored in enclosed dry space preventing from direct sunlight on shelves or pallets at least 5 cm from the floor and at least 1 m from heaters, at temperature max 35°C.

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POLYCARBONATE GRADE PC-010

Injection molding medium viscosity

APPLICATION

Grade PC-010 is intended for manufacturing of industrial-used products by injection molding such as ther-mos-washers, profiles and articles in contact with food and drinking water, as well as for usage as a component in moulding compounds (rarely in extrusion ones).

TECHNICAL CHARACTERISTICS

	Parameter	Standard
1.	Melt flow index, g/10 min, at 1.2 kgf load, 300 °C	10.0±1.5
2.	Melt flow index spread within a batch, %, maximum	All spot samples shall comply with value 1
3.	Number of visible impurities (inclusions), balls/100g, maximum	5
4.	Haze, %, maximum	0.8
5.	Transmission factor, %, minimum	89
6.	Tensile yield strength, MPa, minimum	60
7.	Elongation at break, %, minimum	120
8.	Cross-bending stress at max. sample load, MPa, minimum	90
9.	Flexural modulus, MPa, minimum	2250
10.	Izod impact strength, kJ/m ² , minimum	75
11.	Compression stress at yield, MPa, minimum	76
12.	Vicat softening temperature, °C, minimum	150
13.	Yellowness and blueness index	1.6-2.2
	for PC - L	1.3-1.6
	for PC - L1	0.8-1.3
14.	Transparency and brightness index, minimum	90

Note: Description of additional indices to base grades as follows: U – ultraviolet stabilized grades; R- improved antistick properties; L, L1 – low b* (yellowness and blue) index value: 1.3 – 1.6; 0.8-1.3
Norms and requirements for PC quality parameters with additional are the same as for PC grades without additional indices.

Supply form: Pellets

Packing: Product is packed in polymer bags. The bags neck should be sealed on. Polycarbonates are also packaged in sealed soft containers for bulk solids. Packages should be tightly sewed. Polycarbonate weight in bag should be 25.00±0.25 kg. In big-bag 750±3.75 kg, 850±4.25 kg, 1000±5.0 kg.

Transportation: by all modes of transport.

Storage: Polycarbonates shall be stored in enclosed dry space preventing from direct sunlight on shelves or pallets at least 5 cm from the floor and at least 1 m from heaters, at temperature max 35°C.

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POLYCARBONATE GRADE PC-015

Injection molding medium viscosity

APPLICATION

Grade PC-015 is intended for manufacturing of industrial-used products by injection molding such as thermos-washers, and articles in contact with food and drinking water.

TECHNICAL CHARACTERISTICS

	Parameter	Standard
1.	Melt flow index, g/10 min, at 1.2 kgf load, 300 °C	15.0±1.5
2.	Melt flow index spread within a batch, %, maximum	All spot samples shall comply with value 1
3.	Number of visible impurities (inclusions), balls/100g, maximum	5
4.	Haze, %, maximum	0.8
5.	Transmission factor, %, minimum	89
6.	Tensile yield strength, MPa, minimum	60
7.	Elongation at break, %, minimum	115
8.	Cross-bending stress at max. sample load, MPa, minimum	-
9.	Flexural modulus, MPa, minimum	-
10.	Izod impact strength, kJ/m ² , minimum	66
11.	Compression stress at yield, MPa, minimum	-
12.	Vicat softening temperature, °C, minimum	147
13.	Yellowness and blueness index for PC - L for PC - L1	1.6-2.2 1.3-1.6 0.8-1.3
14.	Transparency and brightness index, minimum	90

Note: Description of additional indices to base grades as follows: U – ultraviolet stabilized grades; R- improved antistick properties; L, L1 – low b* (yellowness and blue) index value: 1.3 – 1.6; 0.8-1.3
Norms and requirements for PC quality parameters with additional are the same as for PC grades without additional indices.

Supply form: Pellets

Packing: Product is packed in polymer bags. The bags neck should be sealed on. Polycarbonates are also packaged in sealed soft containers for bulk solids. Packages should be tightly sewed. Polycarbonate weight in bag should be 25.00±0.25 kg. In big-bag 750±3.75 kg, 850±4.25 kg, 1000±5.0 kg.

Transportation: by all modes of transport.

Storage: Polycarbonates shall be stored in enclosed dry space preventing from direct sunlight on shelves or pallets at least 5 cm from the floor and at least 1 m from heaters, at temperature max 35°C.

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POLYCARBONATE
GRADE PC-022

Injection molding
low viscosity

APPLICATION

Grade Pc-022 is intended for manufacturing of industrial-used products by injection molding such as dome lamps, water supply meters, automobile headlights and lens, as well as for usage as a component in moulding compounds.

TECHNICAL CHARACTERISTICS

	Parameter	Standard
1.	Melt flow index, g/10 min, at 1.2 kgf load, 300 °C	22.0±2.0
2.	Melt flow index spread within a batch, %, maximum	All spot samples shall comply with value 1
3.	Number of visible impurities (inclusions), balls/100g, maximum	5
4.	Haze, %, maximum	0.8
5.	Transmission factor, %, minimum	89
6.	Tensile yield strength, MPa, minimum	60
7.	Elongation at break, %, minimum	100
8.	Cross-bending stress at max. sample load, MPa, minimum	-
9.	Flexural modulus, MPa, minimum	-
10.	Izod impact strength, kJ/m ² , minimum	65
11.	Compression stress at yield, MPa, minimum	-
12.	Vicat softening temperature, °C, minimum	147
13.	Yellowness and blueness index	1.6-2.2
	for PC - L	1.3-1.6
	for PC - L1	0.8-1.3
14.	Transparency and brightness index, minimum	90

Note: Description of additional indices to base grades as follows: U – ultraviolet stabilized grades; R- improved antistick properties; L, L1 – low b* (yellowness and blue) index value: 1.3 – 1.6; 0.8-1.3
Norms and requirements for PC quality parameters with additional are the same as for PC grades without additional indices.

Supply form: Pellets

Packing: Product is packed in polymer bags. The bags neck should be sealed on. Polycarbonates are also packaged in sealed soft containers for bulk solids. Packages should be tightly sewed. Polycarbonate weight in bag should be 25.00±0.25 kg. In big-bag 750±3.75 kg, 850±4.25 kg, 1000±5.0 kg.

Transportation: by all modes of transport.

Storage: Polycarbonates shall be stored in enclosed dry space preventing from direct sunlight on shelves or pallets at least 5 cm from the floor and at least 1 m from heaters, at temperature max 35°C.

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POLYCARBONATE GRADE PC-030

Injection molding low viscosity

APPLICATION

Grade PC-030 is intended for manufacturing of industrial-used products by injection molding such as thermos-washers, and articles in contact with food and drinking water.

TECHNICAL CHARACTERISTICS

	Parameter	Standard
1.	Melt flow index, g/10 min, at 1.2 kgf load, 300 °C	30.0±2.5
2.	Melt flow index spread within a batch, %, maximum	All spot samples shall comply with value 1
3.	Number of visible impurities (inclusions), balls/100g, maximum	5
4.	Haze, %, maximum	0.8
5.	Transmission factor, %, minimum	89
6.	Tensile yield strength, MPa, minimum	60
7.	Elongation at break, %, minimum	90
8.	Cross-bending stress at max. sample load, MPa, minimum	-
9.	Flexural modulus, MPa, minimum	-
10.	Izod impact strength, kJ/m ² , minimum	57
11.	Compression stress at yield, MPa, minimum	-
12.	Vicat softening temperature, °C, minimum	145
13.	Yellowness and blueness index for PC - L for PC - L1	1.6-2.2 1.3-1.6 0.8-1.3
14.	Transparency and brightness index, minimum	90

Note: Description of additional indices to base grades as follows: U – ultraviolet stabilized grades; R- improved antistick properties; L, L1 – low b* (yellowness and blue) index value: 1.3 – 1.6; 0.8-1.3
Norms and requirements for PC quality parameters with additional are the same as for PC grades without additional indices.

Supply form: Pellets

Packing: Product is packed in polymer bags. The bags neck should be sealed on. Polycarbonates are also packaged in sealed soft containers for bulk solids. Packages should be tightly sewed. Polycarbonate weight in bag should be 25.00±0.25 kg. In big-bag 750±3.75 kg, 850±4.25 kg, 1000±5.0 kg.

Transportation: by all modes of transport.

Storage: Polycarbonates shall be stored in enclosed dry space preventing from direct sunlight on shelves or pallets at least 5 cm from the floor and at least 1 m from heaters, at temperature max 35°C.

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**Polycarbonates grade slate**

PC-005R	PC-005L	PC-005L1	PC-005U	PC-005UL	PC-005UL1	PC-005RL	PC-005RL1	PC-005UR	PC-005URL	PC-005URL1
PC-007R	PC-007L	PC-007L1	PC-007U	PC-007UL	PC-007UL1	PC-007RL	PC-007RL1	PC-007UR	PC-007URL	PC-007URL1
PC-010R	PC-010L	PC-010L1	PC-010U	PC-010UL	PC-010UL1	PC-010RL	PC-010RL1	PC-010UR	PC-010URL	PC-010URL1
PC-015R	PC-015L	PC-015L1	PC-015U	PC-015UL	PC-015UL1	PC-015RL	PC-015RL1	PC-015UR	PC-015URL	PC-015URL1
PC-022R	PC-022L	PC-022L1	PC-022U	PC-022UL	PC-022UL1	PC-022RL	PC-022RL1	PC-022UR	PC-022URL	PC-022URL1
PC-030R	PC-030L	PC-030L1	PC-030U	PC-030UL	PC-030UL1	PC-030RL	PC-030RL1	PC-030UR	PC-030URL	PC-030URL1