

# POLYCARBONATE

Materials Selection



KAZANORGSINTEZ



 PC

POLYCARBONATE GRADE PC-005

POLYCARBONATE GRADE PC-007

POLYCARBONATE GRADE PC-010

POLYCARBONATE GRADE PC-015

POLYCARBONATE GRADE PC-022

POLYCARBONATE GRADE PC-030

**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 <sup>2</sup> , minimum	75
11.	Compression stress at yield, MPa, minimum	76
12.	Vicat softening temperature, °C, minimum	150
13.	Yellowness and blueness index, minimum 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: Pallets

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 ±0,25kg. In big-bag 750±3.75 kg, 850±4.25 kg, 1000±5.0 kg.

Transport: 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 1m from heaters, at a temperature max 35°C.

**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	6.0 ± 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 <sup>2</sup> , minimum	75
11.	Compression stress at yield, MPa, minimum	76
12.	Vicat softening temperature, °C, minimum	150
13.	Yellowness and blueness index, minimum 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: Pallets

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 ±0,25kg. In big-bag 750±3.75 kg, 850±4.25 kg, 1000±5.0 kg.

Transport: 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 1m from heaters, at a temperature max 35°C.

**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 thermos-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 ± 1.0
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 <sup>2</sup> , minimum	75
11.	Compression stress at yield, MPa, minimum	76
12.	Vicat softening temperature, °C, minimum	150
13.	Yellowness and blueness index, minimum 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: Pallets

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 ±0,25kg. In big-bag 750±3.75 kg, 850±4.25 kg, 1000±5.0 kg.

Transport: 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 1m from heaters, at a temperature max 35°C.

**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 <sup>2</sup> , minimum	66
11.	Compression stress at yield, MPa, minimum	-
12.	Vicat softening temperature, °C, minimum	147
13.	Yellowness and blueness index, minimum 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: Pallets

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 ±0,25kg. In big-bag 750±3.75 kg, 850±4.25 kg, 1000±5.0 kg.

Transport: 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 1m from heaters, at a temperature max 35°C.

**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 <sup>2</sup> , minimum	65
11.	Compression stress at yield, MPa, minimum	-
12.	Vicat softening temperature, °C, minimum	147
13.	Yellowness and blueness index, minimum 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: Pallets

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 ±0,25kg. In big-bag 750±3.75 kg, 850±4.25 kg, 1000±5.0 kg.

Transport: 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 1m from heaters, at a temperature max 35°C.

**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 <sup>2</sup> , minimum	57
11.	Compression stress at yield, MPa, minimum	-
12.	Vicat softening temperature, °C, minimum	145
13.	Yellowness and blueness index, minimum 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: Pallets

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 ±0,25kg. In big-bag 750±3.75 kg, 850±4.25 kg, 1000±5.0 kg.

Transport: 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 1m from heaters, at a 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



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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



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