

PC-005, PC-007 – Polycarbonates, used for production by extrusion and casting under pressure;

MAIN QUALITY SPECIFICATIONS							
Parameter Name	Rate for Grade						Test Method
	PC-005			PC-007			
	Superior Class	First Class	Second Class	Superior Class	First Class	Second Class	
1 Melt flow index, g/10 min, at 1,2 kgf load, 300°C temperature	5.0±1.0	5.0±1.0	5.0±1.0	7.0±1.0	7.0±1.0	7.0±1.0	4.4
2 Spread of melt flow index in the range of one batch, %, not more	All single samples should correspond to the index 1	25	30	All single samples should correspond to the index 1	20	25	4.4a
3 Quantity of visible contaminations (impurities), p/100 g., not more	5	10	N/A	5	10	N/A	4.5
4 Turbidity, %, not more	0.8	0.8	1.0	0.8	0.8	1.0	4.7
5 Transmitting factor, %, not less	89	89	85	89	89	85	4.7
6 Index of refractive at 20°C, in the range	-	-	-	-	-	-	GOST 19927
7 Tensile yield stress, MPa, not less	60	58	55	60	58	55	4.8
8 Elongation at rupture, %, not less	100	100	80	100	100	80	4.8
9 Bending stress at maximum sample load, Mpa, not less	90	90	80	80	80	70	4.9
10 Bending elastic modulus, MPa, not less	2250	2250	2000	2250	2250	2000	4.10
11 Izod impact strength, kJ/m ² , not less	66	66	60	66	66	60	4.11
12 Compression stress at yield point, MPa, not less	76	70	70	76	70	70	4.12
13 Vicat softening temperature °C, not less	147	147	147	147	147	147	4.13
14 Yellowness and blueness index for PC- L	1,6-2,2 1,35-1,65	1,0-3,5 -	N/A -	1,6-2,2 1,35-1,65	1,0-3,5 -	N/A -	4.14
15 Transparence and brightness index, not less	90	90	N/A	90	90	N/A	4.14
16 Dielectric capacity at frequency of 10 ⁶ , Hz, not more	3,1	N/A	N/A	3,1	N/A	N/A	4.15
17 Loss tangent, 10 ⁶ Hz, not more	0,009	N/A	N/A	0,009	N/A	N/A	4.15
18 Electric strength kV/mm, not less	20	N/A	N/A	20	N/A	N/A	4.16

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PC-010 – Polycarbonates, used for production by casting under pressure;

PC-075- Polycarbonates, used for production by casting under pressure of optical products (including CD-, DVD- and other Disks), and for production of mixture compositions with other plastic.

MAIN QUALITY SPECIFICATIONS					
Parameter Name	Rate for Grade				Test Method
	PC-010		PC-075		
	Superior Class	First Class	Second Class	Optical Grade	
1 Melt flow index, g/10 min, at 1,2 kgf load, 300°C temperature	10.0±1.5	10.0±1.5	10.0±1.5	10.30±0.25	4.4
2 Spread of melt flow index in the range of one batch, %, not more	All single samples should correspond to the index 1	15	20	-	4.4a
3 Quantity of visible contaminations (impurities), p/100 g., not more	5	10	N/A	-	4.5
4 Turbidity, %, not more	0.8	0.8	1.0	0.8	4.7
5 Transmitting factor, %, not less	89	89	85	89	4.7
6 Index of refractive at 20°C, in the range	-	-	-	1.584-1.586	GOST 19927
7 Tensile yield stress, MPa, not less	60	58	55	60	4.8
8 Elongation at rupture, %, not less	100	100	80	50	4.8
9 Bending stress at maximum sample load, Mpa, not less	80	80	70	90	4.9
10 Bending elastic modulus, MPa, not less	2250	2250	2000	2250	4.10
11 Izod impact strength, kJ/m ² , not less	66	66	60	-	4.11
12 Compression stress at yield point, MPa, not less	76	70	70	-	4.12
13 Vicat softening temperature °C, not less	147	147	147	-	4.13
14 Yellowness and blueness index for PC- L	1,6-2,2 1,35-1,65	1,0-3,5 -	N/A -	Less than 3.5	4.14
15 Transparency and brightness index, not less	90	90	N/A	91	4.14
16 Dielectric capacity at frequency of 10 ⁶ , Hz, not more	3,1	N/A	N/A	-	4.15
17 Loss tangent, 10 ⁶ Hz, not more	0,009	N/A	N/A	-	4.15
18 Electric strength kV/mm, not less	20	N/A	N/A	-	4.16

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PC-015, PC-022 –Polycarbonates, used for production by casting under pressure;

MAIN QUALITY SPECIFICATIONS							
Parameter Name	Rate for Grade						Test Method
	PC-015			PC-022			
	Superior Class	First Class	Second Class	Superior Class	First Class	Second Class	
1 Melt flow index, g/10 min, at 1,2 kgf load, 300°C temperature	15.0±1.5	15.0±1.0	15.0±1.5	22.0±2.0	22.0±2.0	22.0±2.0	4.4
2 Spread of melt flow index in the range of one batch, %, not more	All single samples should correspond to the index 1	12	20	All single samples should correspond to the index 1	10	15	4.4a
3 Quantity of visible contaminations (impurities), p/100 g., not more	5	10	N/A	5	10	N/A	4.5
4 Turbidity, %, not more	0.8	0.8	1.0	0.8	0.8	1.0	4.7
5 Transmittingfactor, %, not less	89	89	85	89	89	85	4.7
6 Index of refractive at 20°C, in the range	-	-	-	-	-	-	GOST 19927
7 Tensile yield stress, MPa, not less	60	58	55	60	58	55	4.8
8 Elongation at rupture, %, not less	100	100	80	60	60	50	4.8
9 Bending stress at maximum sample load, Mpa, not less	-	-	-	-	-	-	4.9
10 Bending elastic modulus, MPa, not less	-	-	-	-	-	-	4.10
11 Izod impact strength, kJ/m2, not less	66	66	60	63	57	57	4.11
12 Compression stress at yield point , MPa, not less	-	-	-	-	-	-	4.12
13 Vicat softening temperature °C, not less	147	147	147	147	147	147	4.13
14 Yellowness and blueness index for PC- L	1,6-2,2 1,35-1,65	1,0-3,5 -	N/A	1,6-2,2 1,35-1,65	1,0-3,5 -	N/A	4.14
15 Transparence and brightness index, not less	90	90	N/A	90	90	N/A	4.14
16 Dielectric capacity at frequency of 106, Hz, not more	3,1	N/A	N/A	3,1	N/A	N/A	4.15
17 Loss tangent, 106 Hz, not more	0,009	N/A	N/A	0,009	N/A	N/A	4.15
18 Electric strength kV/mm, not less	20	N/A	N/A	20	N/A	N/A	4.16