

## Base polyethylene grades

Grade	Application
10204-003	Is used for the production of pressure pipes, fittings, blown products, films and film articles of general use, heat shrinkable films, bags
10803-020 10703-020	Is used for the production of profile-molded, injection-molded and blown articles
15803-020	Is used for the production of injection-molded, blown articles and films of general use
12203-250	Is used for the production of pigment concentrates, for paper lamination and medical articles;
11503-070	Is used for lamination of paper and fabric by extrusion, for powder coating of articles, as a filling compound to fill in parts of electric equipment, for molded articles;
17703-010	Is used for the production of heat shrinkable films and film articles of general use, molded, small dimension and profile-molded articles
10303-003	Is used for the production of pressure pipes, fittings, blown products, films and film articles of general use, heat shrinkable films, bags
12903-003	Is used for the production of pressure pipes, fittings, blown products, films and film articles of general use, heat shrinkable films, bags
10903-020	Is used for the production of profile-molded, injection-molded and blown articles
15303-003	Is used for the production of pressure pipes, fittings, blown products, films and film articles of general use, heat shrinkable films, bags

### Technical characteristics

Parameters	Grades					
	10204-003	10803-020	15803-020	12203-250	11503-070	17703-010
Density, g/cm <sup>3</sup>	0.9230 ±0.001	0.9185 ±0.0015	0.9190 ±0.002	0.1960 +0.002	0.9180 ±0.001	0.9190 ±0.002
Melt Flow Index, g/10 min	0.3 ±15%	2.0 ±10%	2.0 ±25%	25.0 +20%	7.0 ±15%	1.0 ±20%
Quantity of inclusions, pcs, max	2	2	2	2	2	5
Spread of melt flow index, %, within a lot	±5	±5	±6	±5	±5	±8
Cracking resistance, hr., min.	500	2.5	-	-	-	-
Technological testing of film appearance	C	B	B	-	B	B
Tensile yield point, MPa, min.	11.3	9.3	9.3	-	9.3	9.8
Rupture strength, MPa, min.	14.7	12.2	11.3	-	9.8	12.2
Elongation at rupture, %, min.	600	550	600	-	450	600
Mass fraction of extractable substances, %, max.	1.4	0.9	0.4	1.4	1.2	0.5
Smell and taste of aqueous extracts, points, max	1	1	1	1	1	1

**Package** - 25 kg polyethylene bags.

**Technical characteristics of LDPE, grade 15303-003.**

Parameters	15303-003		
	Highest quality	First quality	Second quality
Density,g/cm <sup>3</sup>	0.9205±0.0015		
Melt flow index (nominal), with a tolerance, g/10 min	0.3±30		
Spread of melt flow index, %, within a lot, max	±6	±12	±15
Quantity of inclusions, pcs, max	2	8	30
Technological testing of film appearance	A or B	B	C
Cracking resistance, hr., min	500		
Tensile yield point, Pa, min.	98x10 <sup>5</sup>		
Rupture strength, Pa, min.	137x10 <sup>5</sup>		
Elongation at rupture, %, min.	600		
Mass fraction of extractable substances, %, max	0.4	0.6	0.6
Smell and taste of aqueous extracts, points, max	1		

**Technical characteristics of LDPE, grades 10303-003, 12903-003, 10903-020.**

Parameters	10303-003			12903-003			10903-020	
	Highest quality	First quality	Second quality	Highest quality	First quality	Second quality	Highest quality	Second quality
Size of pellets in any direction, mm	2-5			2-5			2-5	
Mass fraction of pellets, %, not more								
with the size over 5 to 8 mm	0.25	0.5	0.8	0.25	0.5	0.8	0,25	0,5
with size over 1 to 2 mm	0.5	0.5	0.5	0.5	0.5	0.5	0,5	0,5
Mass fraction of pellets of a different colour, %, not more	Not allowed		0.04	Not allowed		0.04	Not allowed	
Mass fraction of gray and oxidized pellets, %, not more	Not allowed		0.1	Not allowed		0.1	Not allowed	
Density,g/cm <sup>3</sup>	0.9205±0.0015			0.9190±0.002			0.9185±0.0015	
Melt Flow Index (nominal), with a tolerance, g/10 min	0.3±15	0.3±20		0.3±15	0.3±20		2.0±10	2.0±15

Spread of melt flow index, %, within a lot, max	±5	±10	±15	±5	±10	±15	±5	±8	±12	
Quantity of inclusions, pcs, max	2	8	10	2	5	10	2	5	15	
Technological testing of film appearance	C		C		B		B		C	
Cracking resistance, hr., min	500		Not specified	1000		4		Not specified		
Tensile yield point, Pa, min.	98x10 <sup>5</sup>		93x10 <sup>5</sup>		85x10 <sup>5</sup>					
Rupture strength, Pa, min.	137x10 <sup>5</sup>		137x10 <sup>5</sup>		115x10 <sup>5</sup>					
Elongation at rupture, %, min.	600		550		500					
Mass fraction of extractable substances, %, max	0.7	1.0		0.9	1.1		0.9	1.1		
Smell and taste of aqueous extracts, points, max	1		Not specified	1		Not specified		1		Not specified