

# LDPE

10803-020, 11503-070, 15313-003, 15813-020 grades  
GOST 16337-77, rev. 1-3

**Production method:** high pressure (low density) polyethylene is produced by high-pressure ethylene polymerization in tubular and stirred reactors with radical initiators.

**Application:** for production of bags, pipes, fittings, food-contacting articles, toys, films and film articles, shaped and linear articles etc.

No.	Parameter	Standard for the grade											
		10803-020			11503-070			15313-003			15813-020		
		ex. gr.	1st qr.	2nd gr.	ex. gr.	1st qr.	2nd gr.	ex. gr.	1st qr.	2nd gr.	ex. gr.	1st qr.	2nd gr.
1	Density, g/cm <sup>3</sup>	0.9185±0.0015			0.9180±0.001			0.9205±0.0015			0.9190±0.002		
2	Melt flow index (nominal value with allowance), % g/10 min.	2.0 ±10			7.0±15			0.3±30			2.0±25		
3	Melt flow index spread within one batch, %, maximum	±5	±8	±12	±5	±10	±12	±6	±12	±15	±6	±12	±15
4	Number of inclusions, pcs, maximum	2	5	15	2	5	10	2	8	30	2	8	30
5	Tensile yield strength, Pa (kgf/cm <sup>2</sup> ), minimum	93x10 <sup>5</sup> (95)			93x10 <sup>5</sup> (95)			98x10 <sup>5</sup> (95)			93x10 <sup>5</sup> (95)		
6	Tensile stress at break, MPa, minimum	122x10 <sup>5</sup> (125)			98x10 <sup>5</sup> (100)			137x10 <sup>5</sup> (140)			113x10 <sup>5</sup> (115)		
7	Elongation at break, %, minimum	550			450			600			600		
8	Crack propagation resistance, h, minimum	2			–			500			–		
9	Extractable substances, % wt, maximum:	extra grade			1.2			0.4			0.4		
		1st and 2nd grade			1.2			0.6			0.6		
10	Film appearance testing:	extra grade			B			A or B			A or B		
		1st grade			B			B			B		
		2nd grade			C			C			C		
11	Odor and taste of aqueous extracts, points, maximum	1			1			1			1		

Safety requirements, acceptance procedure, testing methods, packing, labelling and transportation are in accordance with GOST 16337-77. Packing: PE bags, special soft containers etc. Carriage: by all modes of transport in accordance with trans-



LDPE of 10803-020 grade is a prize-winner of «100 Best Goods of Russian» and «Best Goods of the Republic of Tatarstan» Contests (2011).

LDPE of 15313-003 grade is a prize-winner of «Best Goods of the Republic of Tatarstan» (2010).

LDPE of 11503-070 UUP grade is a prize-winner of «100 Best Goods of Russian» (2006, 2007) and «Best Goods of the Republic of Tatarstan» (2006, 2007) Contests.

LDPE of 11503-070 grade is a prize-winner of «100 Best Goods of Russian» (2002) and prize-winner of «100 Best Goods of Russian» (2002). LDPE 11503-070 and 10803-020 grade are certified as per GOST R voluntary certification system.