

LOW DENSITY POLYETHYLENE

(grades 10204-003, 10803-020, 11503-070, 15303-003, 15803-020, 12003-200, 17703-010)

Low density polyethylene (grades 10204-003, 10803-020, 11503-070, 15303-003, 15803-020, 12003-200, 17703-010) is manufactured as per GOST 16337.

Recommended usage:

grade 10204-003 - manufacture of pressure pipes and fittings, including those for cold water household service, manufacture of blown articles, films and film articles of general purpose, also contacting with foodstuff, manufacture of toys;

grade 10803-020 - manufacturing of profile-molded articles, casted and blown articles, films and film articles of general purpose, also contacting with foodstuff (including tight packaging), manufacture of toys, articles certified for packaging and closures of medicines;

grade 11503-070 – for rotational molding of large technical articles, sintering of articles, as a molding compound for filling of electrical parts, lamination of paper, fabric and other articles, coating of articles by spraying, manufacture of casted articles, films and film articles of general purpose, also contacting with foodstuff (including tight packaging), manufacture of toys, articles certified for packaging and closures of medicines;

grade 15803-020 - production of injection and blown articles and films of special and general purpose, shrink wrap films, thin films, also contacting with foodstuff (including tight packaging), manufacture of toys, medical application articles, parts and components of medical equipment, medical devices and tools, manufacture of articles certified for packaging and closures of medicines;

grade 12003-200 - as a molding compound for filling of electrical parts, manufacture of casted articles, coating of articles by spraying, food contact products, manufacture of toys

grade 17703-010 - manufacturing of profile-molded articles, casted and blown articles, shrink wrap and general purpose films and film articles, also contacting with foodstuff (including tight packaging), manufacture of medical application articles, parts and components of medical equipment, medical devices and tools, manufacture of articles certified for packaging and closures of medicines, articles contacting with human tissues, also for internal prostheses.

TECHNICAL CHARACTERISTICS

Parameter	Norm for the grade, highest quality						
	10204-003	10803-020	11503-070	15803-020	12003-200	17703-010	15303-003
Size of pellets in any direction, mm	2-5						
Mass fraction of pellets, %, not more	0.25						
Larger than 5 - 8 mm							
Larger than 1 - 2 mm	0.5						
Density, g/cm ³	0.9230±0.001	0.9185±0.0015	0.9180±0.001	0.9190±0.002	0.9170±0.001	0.9190±0.002	0.9205±0.0015
Melt flow index (nominal value) with tolerance, %, g/10 min	0.3±15	2.0±10	7.0±15	2.0±25	20.0±15	1.0±20	0.3±30
Melt flow index dispersion within lot limits, %, not more	±5	±5	±5	±6	±5	±8	±6
Number of inclusions, pcs, not more	2	2	2	2	2	5	2
Film appearance on process sample	S	V	V	A or V	-	V	A или B
Cracking resistance, hr., not less	500	2	-	-	-	-	500
Tensile yield point, Pa, not less	113·10 ⁵	93·10 ⁵	93·10 ⁵	93·10 ⁵	-	98·10 ⁵	98·10 ⁵
Tensile strength, Pa, not less	147·10 ⁵	122·10 ⁵	98·10 ⁵	113·10 ⁵	-	122·10 ⁵	137·10 ⁵
Relative elongation at rupture, %, not less	600	550	450	600	-	600	600
Extractive substances content, %, not more	1.4	0.9	1.2	0.4	1.2	0.5	0.4
Smell and smack of aqueous extracts, score, not higher	1	1	1	1	-	1	1