



UFAORGSINTEZ PJSC

450037, Russian Federation, Republic of Bashkortostan, Ufa city

Quality Division, Testing Center for Petrochemical Products, Raw Materials and Environmental Facilities

Unique entry number in the Register of Accredited Entities No. RA.RU.21УФ03

Laboratory of Quality Control of polyethylene production



## CERTIFICATE No. 8269-2021

### POLYETHYLENE GOST 16337-77 with amend. 1-3

Grade 15303-003, sort 1 OKPD 2 Code 20.16.10.111  
Batch No. 8269 NET weight: 4,325.00 kg  
Date of manufacture: 19.10.2021  
Date of sampling: 19.10.2021  
Test date: 20.10.2021  
Designation of the regulatory documentation (RD),  
according to which the sample was taken GOST 16337-77 with amend.1-3, Items 2.2, 2.3, 2.10

Item No.	Name of the indicator	RD for test method	Norm according to GOST 16337-77			Analysis result
			Top grade	Grade 1	Grade 2	
1	Density, g/cm <sup>3</sup>	GOST 15139-69 with amend. 1, Item 5, GOST 16337-77, Item 3.11	from 0.9190 to 0.9220 (0.9205±0.0015)			guarantee
2	Melt flow rate, g/10 min	GOST 11645-73, GOST 16337-77, Item 3.12	from 0.21 to 0.39 (0.3±30%)			0.32
3	The spread of the melt flow rate within the batch, %	GOST 16337-77, Item 3.13	±6	±12	±15	5
4	Number of inclusions, pcs.	GOST 16337-77, Item 3.14	maximum 2	maximum 8	maximum 30	3
5	Technological test for the appearance of the film	GOST 16337-77 Item 3.15	A, B	B	C	guarantee
6	Cracking resistance, hour	GOST-13518-68	minimum 500			guarantee
7	Tensile yield point, Pa (kgf/cm <sup>2</sup> )	GOST 11262-2017 GOST 16337-77, Item 3.17	minimum 98*10 <sup>5</sup> (100)			guarantee
8	Tensile strength, Pa (kgf/cm <sup>2</sup> )		minimum 137*10 <sup>5</sup> (140)			guarantee
9	Elongation at break, %		minimum 600			guarantee
10	Odor and taste of aqueous extracts, points	GOST 22648-77, GOST 16337-77, Item 3.24	maximum 1		-	guarantee
11	Mass fraction of extractables, %	GOST 26393-84, GOST 16337-77, Item 3.18	maximum 0.4	maximum 0.6		guarantee
12	Mass fraction of gray granules, %	GOST 16337-77 Item 3.9	-	maximum 0.1		0.00
13	Mass fraction of oxidized granules, %	GOST 16337-77 Item 3.9	-	maximum 0.1		0.00
14	Mass fraction of granules of a different color, %	GOST 16337-77 Item 1.6	-	maximum 0.04		0.00
15	Mass fraction of granules over 5 to 8 mm in size, %	GOST 16337-77 Item 3.8	maximum 0.25			0.00
16	Mass fraction of the granules with a size from 1 to 2 mm, %		maximum 0.5			0.0

#### Conclusion: the product complies with GOST 16337-77 with amend. 1-3

The products are manufactured under the guidance of the Management Systems certified for compliance with the requirements: ISO 9001:2015 Certificate No. 31100600 QM15, ISO 50001:2018 Certificate No. 31100600 EMS18, ISO 14001:2015 Certificate No. 31100600 UM15, ISO 45001:2018 Certificate No.31100600 OHS18.

**Scope of Application:** Intended for the production of technical devices, devices contacting with food, toys, films and film devices, for the use in medicine (including the production of devices permitted for the packing of drugs) and for agricultural activities.

**Characteristics of fire and explosion hazard:** Combustible, when heating during the processing above 140 °C and exposure of open flame, volatile products of thermal and oxidative destruction, which contain organic acids, formaldehyde, acetaldehyde, and carbon monoxide, are released. In case of the exposure of open flame, polyethylene inflames without explosion and burns with sooting flame. Aerosol and dry dust of polyethylene are explosive; the particle friction results in accumulating the charge of static electricity.

**Transportation rules:** It is transported by all types of transport in covered vehicles in accordance with the rules of cargo transportation applicable to this type of transport. When transported by sea, paper bags are enclosed in polyethylene bags; it is allowed to be transported in bulk in railway wagons (model 17-495(917)), tank containers (GOST 26380), special and tank trucks (type K 104OE). Packing shall be done as per GOST 21929, bag sizes shall comply with GOST 24597, and means of fixation shall comply with GOST 21650.

**Storage rules:** Storage conditions - temperature no higher than 25 °C, relative humidity 40-80 %. Store in closed room while avoiding the exposure of direct sunlight at a distance of not less than 1m from heating devices. Before opening, bags with polyethylene must be kept in the production room for at least 12 hours.

**Neutralization, disposal, and burial of wastes:** Waste unsuitable for recycling does not require neutralization, and is subject to removal to places agreed with the bodies of the Ministry of Emergency Situations and Environmental Safety and the Federal Service for Supervision of Consumer Rights Protection and Human Welfare (Division of the Federal Service for Supervision of Consumers Protection and Welfare (Rosspotrebnadzor)).

**Warranty period of storage:** for the polyethylene with a melt flow rate up to 12 g/10 min

Basic grades: 3 years from the date of manufacture. Compositions: for stabilization formulations: No. 08 - 3 years; Nos. 03, 06, 07, 14, 98 - 5 years; Nos. 01, 02, 04, 09, 10, 12, 93-97, 99, 100 - 7 years.

Chemical Analysis Laboratory Assistant of 5th  
Category (Power of Attorney No. 33/21 dated  
01.01.2021)

Stamp here

Signature

Seal:  
PUBLIC JOINT STOCK COMPANY  
PUBLIC JOINT-STOCK COMPANY  
Quality Department  
Quality Division  
7/2  
UFAORGSINTEZ  
UFAORGSINTEZ

Signature

O.V. Butvilovich

Certificate registration date: 20.10.2021.