UFAORGSINTEZ PJSC



450037, Russian Federation, Republic of Bashkortostan, Ufa Quality Division, Testing Center for Petrochemical Products, Raw Materials and Environmental Facilities Unique number of entry in the Register of Accredited Entities No. RA.RU.21УΦ03 Laboratory for the Quality Control of the Products Obtained During the Production of Polyethylene

CERTIFICATE No. <u>9093-2021</u> POLYETHYLENE

GOST 16337-77 with amendments 1-3

Brand	17703-010, grade 1	OKPD2 Code	20.16.10.111	
Batch No.	9093	Net weight	4575.00 kg	
Date of manufacture	November 12, 2021			
Date of sampling	November 13, 2021			
Test date	November 13, 2021			
Designation of the regulatory	v documentation (RD). GOS	ST 16337-77 with amendments 1–3. Item 2	2 2 3 2 10	

Designation of the regulatory documentation (R according to which the sample was taken

Item	Name of indicator	RD for test method	Norm according to GOST 16337-77			A
No.	Name of indicator	RD for test method	Highest grade	Grade 1	Grade 2	Analysis result
1	Density, g/cm ³	GOST 15139-69 with amendment 1, Item 5, GOST 16337-77, Item 3.11	from 0.9170 to 0.9210 (0.9190 ± 0.002)			guarantee
2	Melt liquidity index, g/10 min	GOST 11645-73, GOST 16337-77, Item 3.12	from 0.8 to 1.2 (1.0 ± 20%)			0.9
3	Diversity of the melt liquidity index within batch, %	GOST 16337-77, Item 3.13	±8	±12	±15	4
4	Number of inclusions, pcs.	GOST 16337-77, Item 3.14	not more than 5	not more than 8	not more than 30	8
5	Process sample for the film external appearance	GOST 16337-77, Item 3.15	В		С	В
6	Tensile yield point, Pa (kgf/cm ²)	GOST 11262-2017, GOST	not less than 98*10 ⁵ (100)			guarantee
7	Tensile strength, Pa (kgf/cm ²)	16337-77, Item 3.17	not less than 122*10 ⁵ (125)		guarantee	
8	Tension set, %		not less than 600			guarantee
9	Odor and taste of aqueous extracts, points	GOST 22648-77, GOST 16337-77, Item 3.24	not more than 1		-	guarantee
10	Mass fraction of extractables, %	GOST 26393-84, GOST 16337-77, Item 3.18	not more than 0.5 not more		than 0.6	guarantee
11	Mass fraction of gray granules, %	GOST 16337-77, Item 3.9	-		not more than 0.1	0.0
12	Mass fraction of oxidized granules, %	GOST 16337-77, Item 3.9	-		not more than 0.1	0.0
13	Mass fraction of the granules with other coloration, %	GOST 16337-77, Item 1.6	-		not more than 0.04	0.00
14	Mass fraction of the granules with a size from 5 to 8 mm, %	GOST 16337-77, Item 3.8	not more than 0.25			0.00
15	Mass fraction of the granules with a size from 1 to 2 mm, %		not more than 0.5			0.0

Conclusion: the product complies with GOST 16337-77 with amendments 1-3

The products are manufactured under the management of management systems certified for compliance with the requirements: ISO 9001:2015 Certificate No. 31100600 QM15, ISO 50001:2018 Certificate No. 31100600 EMSt18, 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 agriculture.

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 highly explosive; the particle friction results in accumulating the charge of static electricity.

Transportation rules: Transported by all types of transport in sheltered vehicles in accordance with the rules of cargo transportation, which are in force in this type of transport. When transporting by sea, paper bags shall be inserted into polyethylene bags; the transportation in bulk in railcars (model 17-495(917)), tank containers (GOST 26380), special tanks, and tank trunks (type K 104O3). 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 not more than 25 °C, air relative humidity of 40–80 %. Store in closed room while avoiding the exposure of direct sunlight at a distance of not less than 1 m from heating devices. Before opening, the bags with polyethylene must be allowed to stand in industrial room for at least 12 hours.

Neutralization, disposal, and burial of wastes: Wastes that are inapplicable for recycling do not require neutralizing, are subject to removal to places agreed with authorities of the Ministry of Extraordinary Situations of the Russian Federation and Federal Service for Supervision of Consumers Protection and Welfare (Division of the Federal Service for Supervision of Consumers Protection and Welfare).

Warranty period of storage: for the polyethylene with a melt liquidity index up to 12 g/10 min Basic brands: 3 year 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 January 1, 2021)

Stamp here

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

Signature G.G. Sharafutdinova

Date of certificate documentation November 15, 2021

Signature