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>693-2021</u>

POLYETHYLENE FOR TECHNICAL DEVICES TU 38.30248-92

 Batch No.
 693
 OKPD2 Code
 20.16.10.111

 Date of manufacture
 December 9, 2021
 Net weight
 5000.00 kg

Date of samplingDecember 9, 2021Test dateDecember 10, 2021

Designation of the regulatory documentation (RD), TU 38.30248-92 with amendment 1, Item 3.2

according to which the sample was taken

| Item No. | Name of indicator | RD for test method | Norm | Analysis result |
|-------------|---|--|---|-----------------|
| 1 | Granule size | GOST 16337-77, Item 3.8 | Granules and flakes with a size of 2–8 mm in any dimension, of natural or any other color depending on used dye or stabilizer | Compliant |
| 2 | Melt liquidity index, g/10 min | GOST 11645-73, GOST 16337-77, Item 3.12 | from 0.2 to 15 | 2.4 |
| 3 | Tensile strength, kgf/cm ² | GOST 11262-2017, GOST 16337- | not less than 90 | guarantee |
| 4 | Tension set, % | 77, Item 3.17 | not less than 400 | guarantee |
| 5 | Mass fraction of the granules with a size from 1 to 2 mm, % | GOST 16337-77, Item 3.8 | not more than 0.5 | 0.0 |
| 6 | Other defects | | not standardized | No |

Note: It is allowed that granules, flakes with a size less than 1 mm to 2 mm are present; their mass fraction must not exceed 0.5%. It is allowed that the polyethylene hue changes within one color, as well granules of other color are present.

Comment: number of inclusions 18 pcs.; mass fraction of gray granules 0.07%; mass fraction of oxidized granules 0.07%

Conclusion: the product complies with TU 38.30248-92

Not subject to mandatory certification.

The products are manufactured in accordance with the Management systems certified for compliance with the specifications of: 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 various technical devices, consumers' goods (valves, pipes, sanitary fittings, wrapping film material, and other devices). It is prohibited to use for the manufacturing of devices intended for the contact with food products, toys, and medical devices.

Characteristics of fire and explosion hazard: Polyethylene for technical devices as per GOST 12.1.044 is related to the group of solid materials with high smoke-producing capacity. When heating polyethylene, during the processing up to temperature up to 150 °C and in case of the contact with open fire, the formation of volatile products of thermal and oxidative destruction: organic acids, formaldehyde, acetaldehyde, carbon oxide. In case of the exposure of open flame, polyethylene inflames without explosion and burns with sooting flame with the formation of a melt.

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.

Storage rules: Store in closed room while avoiding the exposure of direct sunlight at a distance of not less than 1 m from heating devices.

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: 3 years; with the melt liquidity index of 12 g/10 min - 15 g/10 min: 5 years from the date of receipt.

| Chemical Analysis | s Laboratory Assistant of 5th | | | | |
|--------------------|-------------------------------|---|---|----------|--------------------|
| Category (Power of | of Attorney No. 33/21 dated | Seal: | | | |
| January 1, 2021) | · | PUBLIC JOINT STOCK COMPANY PUBLIC JOINT-STOCK COMPANY | Si | ignature | G.G. Sharafutdinov |
| • , , | | Quality Department | | , | |
| | L.S. | Quality Division 7/2 "UFAORGSINTAZ" | Date of certificate documentation December 10, 2021 | | |

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