



UFAORGSINTEZ PJSC

450037, Russian Federation, Republic of Bashkortostan, Ufa city  
Quality Division, Testing Center for Petrochemical Products, Raw Materials and Environmental Facilities  
Accreditation Certificate No. RA.RU.21УФ03  
Laboratory of Quality Control of polyethylene production



## CERTIFICATE No. 10559-2020

### POLYETHYLENE GOST 16336-2013

Grade 153-10K Top grade OKPD 2 Code 20.16.10.111  
Batch No. 10559 NET weight: 3,375.00 kg  
Date of manufacture: 14.12.2020  
Date of sampling: 14.12.2020  
Test date: 15.12.2020  
Designation of the regulatory documentation (RD),  
according to which the sample was taken GOST 16336-2013 items 7.2, 8.1.1–8.1.5

| Item No. | Name of the indicator                               | RD for test method                         | Norm according to GOST 16336-2014 |              | Established by the analysis |
|----------|---|--|-----------------------------------|--------------|-----------------------------|
|          |   |  | Top grade                         | Grade 1      |                             |
| 1        | Melt flow rate, g/10 min                            | GOST 11645-73, GOST 16336-2013, Item 8.4   | from 0.21 to 0.39                 |              | 0.37                        |
| 2        | The spread of the melt flow rate, %                 | GOST 16336-2013, Item 8.5                  | maximum 8                         | maximum 12   | 4                           |
| 3        | Mass fraction of volatile substances, %             | GOST 26359-84                              | maximum 0.07                      | maximum 0.10 | 0.03                        |
| 4        | Cracking resistance, hour                           | GOST 13518-68                              | minimum 1000                      |              | guarantee                   |
| 5        | Tensile yield point, MPa                            | GOST 11262-2017, GOST 16336-2013, Item 8.8 | minimum 9.8                       |              | guarantee                   |
| 6        | Tensile strength, MPa                               |  | minimum 13.7                      |              | guarantee                   |
| 7        | Elongation at break, %                              |  | minimum 600                       |              | guarantee                   |
| 8        | Mass fraction of extractables, %                    | GOST 26393-84                              | maximum 0.5                       | maximum 0.6  | guarantee                   |
| 9        | Resistance to thermo-oxidative aging                | GOST 16336-2013 Item 8.9                   | minimum 8                         |              | guarantee                   |
| 10       | Resistance to photo-oxidative aging, hour           | GOST 16336-2013 Item 8.10                  | minimum 500                       |              | guarantee                   |
| 11       | Mass fraction of granules over 5 to 8 mm in size, % | GOST 16336-2013 Item 8.1.7                 | maximum 0.25                      |              | 0.00                        |
| 12       | Mass fraction of granules less than 2 mm in size, % | GOST 16336-2013 Item 8.1.8                 | maximum 0.5                       |              | 0.0                         |

#### Conclusion: the product corresponds to GOST 16336-2013

#### Not subject to mandatory certification

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 14001:2015 Certificate No. 31100600 UM15, ISO 45001:2018 Certificate No. 31100600 OHS 18.

**Scope of Application:** Designed for the application of insulation, sheaths and protective covers of cables.

**Characteristics of fire and explosion hazard:** in terms of the degree of impact on the human body is classified as hazard class 4 in accordance with GOST 12.1.007. The maximum permissible concentration of polyethylene aerosol in the air of the working area is 10 mg/m<sup>3</sup> according to GOST 12.1.005. When heated during processing above 140 °C and an open flame is applied, it is possible to release volatile products of thermo-oxidative degradation containing organic acids, formaldehyde, acetaldehyde, carbon monoxide.

In case of the exposure of open flame, polyethylene inflames without explosion and burns with sooting flame. The ignition temperature of the compositions is about 300 °C, the self-ignition temperature is about 400°C. Aerosol and dry dust of compositions are explosive; the particle friction results in accumulating the charge of static electricity.

**Transportation rules:** Polyethylene compositions are transported by all modes of transport in accordance with the rules of cargo transportation applicable to this vehicle. When transported by rail, polyethylene is transported in covered wagons and universal/sea containers. Polyethylene compositions in bags are transported in covered vehicles with no more than 15 rows in height, providing protection from precipitation, exposure to sunlight and pollution, as well as losses. Transportation by road is carried out in accordance with the rules of cargo transportation by road. Containers and transport for shipping operations must be dry, clean, odorless.

**Storage rules:** 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. In normal storage conditions at a temperature not exceeding 25 °C with and relative humidity of 40–80 %.

Before opening, bags with polyethylene must be kept in the production room for at least 12 hours.

**Neutralization, disposal, and burial of wastes:** Before opening, bags with polyethylene must be kept in the production room for at least 12 hours.

**Warranty period of storage:** When stored according to method (1) – 8 years from the date of manufacture, according to method (2) – 12 years from the date of manufacture.

Chemical Analysis Laboratory Assistant of 5th  
Category (Power of Attorney No. 26/20 dated  
01.01.2020)

Signature

G.G. Sharafutdinova

Stamp here

Certificate registration date: 15.12.2020

Signature