



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 polypropylene production



LAUREATE
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CERTIFICATE No. 468-2021
(POLYPROPYLENE AND PROPYLENE COPOLYMERS)
TS 2211-074-05766563-2015 as amended 1-3

Grade 02015 **OKPD 2 Code** 20.16.51.190
Batch No. 468 **Net weight** 244.375 t
Date of manufacture 12.12.2021
Date of sampling 12.12.2021
Test date 12.12.2021–13.12.2021
Designation of the regulatory documentation (RD), according to which the sample was taken TS 2211-074-05766563-2015 as amended 1-3

Item No.	Name of the indicator	RD for test method	Norm	Established by the analysis
1	Melt flow rate (230 °C / 2.16 kg), g/10min	ASTM D 1238	from 1.2 to 1.7	1.6
2	The spread of the melt flow rate within the batch, %	TS 2211-074-05766563-2015, cl. 5.5	not more than 10	0
3	Mass fraction of granules with a size of more than 5 to 8 mm and less than 2 mm, as well as stuck together, provided that no more than three granules stick together, %	TS 2211-074-05766563-2015, cl. 1.2	not more than 3	0.4
4	Mass fraction of volatile substances, %	TS 2211-074-05766563-2015, cl. 5.6	not more than 0.09	0.02
	Resistance to thermo-oxidative aging at 150°C as to formulation 216, hour	TS 2211-074-05766563-2015, cl. 5.9	minimum 360	guarantee
6	Tensile yield point, MPa		minimum 26	27.4
7	Elongation at yield strength, %	ASTM D 638	minimum 14	15.1
8	Modulus of flexibility, mPa	ASTM D 790	minimum 750	1,190
9	Izod impact toughness of notched sample at 0 °C, J/m	ASTM D 256	no less than 60	88(100C%)

Note: 1) The indicator is determined by the calculation method.

Conclusion: the product meets TS 2211-074-05766563-2015, as amended 1-3.

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 50001:2018 Certificate No. 31100600 EMS18, ISO 14001:2015 Certificate No. 31100600 UM15, ISO 45001:2018 Certificate No. 31100600 OHS18.

Scope of application: for technical and household products, products in contact with food, toys.

Characteristics of fire and explosion hazard: pelletized baleen as per GOST 12.1.044 is related to the group of solid combustible materials with high smoke-producing capacity. When baleen heating, during the processing up to temperature up to 150 °C, the formation of products of volatile thermal destruction, which contain as to GOST 12.3.030 acetic acid, formaldehyde, acetaldehyde, carbon oxide. Upon contact with an open fire, the baleen burns with a smoky flame without an explosion with the formation of a melt and the release of carbon dioxide, water vapor, unsaturated hydrocarbons and the above thermal destruction products. Dry dust of the baleen suspended in the air is explosive, static electricity charges accumulate when particles are rubbed

Transportation rules: baleen is transported by all types of transport in covered vehicles in accordance with the rules of cargo transportation applicable to this type of transport. Baleen packed in bags, when loaded into containers in accordance with GOST 15102 or GOST 20435, shall be transported in any means of transport. It is allowed, upon agreement with the consumer, to transport in bulk in railway cars and road pneumatic tanks.

Storage rules: baleen is stored in closed dry room while avoiding the exposure of direct sunlight at a distance of not less than 1 m from heating devices at a temperature not more than 30 °C and relative humidity not more than 80 %. Before recycling, bags with baleen must be kept in the production room for at least 12 hours. It is allowed to store the baleen at the consumer's for up to 30 days in the metallic storage drums installed on outdoor sites, which exclude moisture ingress and product contamination.

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 Civil Defense, Emergencies and Disaster Relief 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 (Rosпотребнадзор).

Warranty period of storage: 3 years from the date of manufacture.

Date of passport registration: 13.12.2021

Chemical Analysis Laboratory Assistant of the 5th grade – production team leader /Signature/ Mullakhmetova E.R.
(Power of attorney No. 37/21 dated 01.01.2021)

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Date of passport registration: 13.12.2021

Stamp:
Public Joint Stock Company
UFAORGSINTEZ
Quality Division 0/1