PJSC UFAORGSINTEZ

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.21 $\mathrm{V}\Phi03$

Laboratory for the Quality Control of the Products Obtained During the Production of Polyethylene



CERTIFICATE No. 23-2021

POLYETHYLENE TU 2211-091-05766563-2012

Brand NMPE-2 (low-molecular OKPD2 Code 20.16.10.190

polyethylene), grade 1

Batch No. 23 **Net weight** 6350.00 kg

Date of manufactureNovember 15, 2021Date of samplingNovember 15, 2021Test dateNovember 15, 2021

Designation of the regulatory documentation (RD), TU 2211-091-05766563-2012, Item 4.2-4.3, GOST 16337, Item 2.2

according to which the sample was taken

Item No.	Indicator	RD for test method	Norm Grade 1 Grade 2	Analysis result				
1	External appearance	TU 2211-091-05766563-2012,	Ointment- or wax-like mass mixed with	ointment-like mass,				
		Item 5.1	possible presence of liquid fraction of light	light gray color with				
			gray or brown color	inclusions				
2	Dynamic viscosity of melt, mPa*s	TU 2211-091-05766563-2012	from 20 to 400	79				
3	Mass fraction of ash, %	TU 2211-091-05766563-2012, Item 5.3	not more than 0.1	0.09				
4	Drop point, °C	TU 2211-091-05766563-2012, Item 5.4	from 55 to 100	66				
5	Mass fraction of volatile substances, %	TU 2211-091-05766563-2012, Item 5.5	not more than 1.0 not more than 2.0	0.83				

Conclusion: the product complies with TU 2211-091-05766563-2012

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: As a component of compositions used in rubber and technical industry, construction, and other areas.

Characteristics of fire and explosion hazard: Low-molecular polyethylene is combustible as per GOST 12.1.044.

When heating up to a temperature above 100 °C and in case of the contact with open fire, it burns with sooting flame with the formation of a melt and release of gaseous products of thermal destruction, which contain organic acids, formaldehyde, acetaldehyde, carbon oxide.

The low-molecular polyethylene fire point is $340\,^{\circ}$ C, its autogenous ignition temperature is within $349-422\,^{\circ}$ C. The low-molecular polyethylene decomposition temperature is $440-480\,^{\circ}$ C. Concentration limits of flame propagation: upper $20\,$ g/m³, lower $41\,$ g/m³. The combustion product toxicity indicator is $10-40\,$ g/m³. When handling with low-molecular polyethylene, the accumulation of static electricity charges is possible.

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. It is allowed to store in a package at open air under a shelter for not more than three months from the date of manufacture. In case of the packing of low-molecular polyethylene in bags, pallets as per GOST 9078 or GOST 24597 are used for stacking.

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: 2 year from the date of manufacture.

Chemical Analysis Lab Category (Power of Att	-				
January 1, 2021)	officy 100. 33/21 dated	PUBLIC JOINT STOCK COMPANY PUBLIC JOINT-STOCK COMPANY Quality Department	Siç	gnature	T.Yu. Matveeva
	Stamp here	Quality Division 7/2 "UFAORSINTAZ"	Date of certificate documentation	Decembe	r 21, 2021