UFAORGSINTEZ PJSC



450037, Russian Federation, Republic of Bashkortostan, Ufa city 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 of quality control of ethylene-propylene rubber production

CERTIFICATE No. <u>352-2021</u>

Synthetic ethylene propylene diene rubber EPDM TS 2294-087-05766563-2010 with amend 1-3

	15 4474-007-0370		
Grade	EPDM 50	OKPD 2 Code:	20.17.10.173
Batch No.	334	NET weight:	4,750 kg
Date of manufacture:	27.12.2021	Number of packages:	190
Date of sampling:	27.12.2021	Briquette numbers	75951-76140
Test date:	29.12.2021		

The designation of the RD according to which the sample was taken GOST 27109

Item	Name of the indicator	RD for test method	Norm according to TS	Analysis result
No.				-
1	Mooney viscosity (1+4) 100 °C, within, Mooney units	GOST 10722-76, TS 2294-087-	from 46 to 55	50
		05766563-2010 with amend. 1-3 item 5.3		
2	Viscosity spread within the batch, Mooney units	TS 2294-087-05766563-2010 with amend. 1-3, item 5.3.4	maximum 5	1
3	Mass fraction of dicyclopentadiene units, within, %	TS 2294-087-05766563-2010 with amend. 1-3, item 5.4.2	from 5.8 to 7.2	5.9
4	Mass fraction of propylene units, within, %	L-124-2014	from 42 to 50	47
5	Weight loss during drying, %	GOST 19338-90, TS 2294-087-	maximum 0.7	0.2
		05766563-2010 with amend. 1-3, item 5.5		
6	Mass fraction of ash, %	GOST 19816.4-91, TS 2294-087-	maximum 0.2	guarantee
		05766563-2010 with amend. 1-3, item 5.6		
7	Mass fraction of vanadium, %	MI-08-5-103-2019 YUL-313	maximum 0.008	0.003
8	Mass fraction of alcohol-toluene extract, %	GOST 19920.6-74, TS 2294-087-	maximum 4.0	guarantee
		05766563-2010 with amend. 1-3 item 5.8		
9	The mass fraction of the antioxidant Irganox-1520L or its commercial analogues, %	MI-08-5-104-2019 YUL-313	minimum 0.10	0.15
10	Conditional tensile strength with technical carbon grade P-324	GOST 270-75, TS 2294-087-	minimum 18.8	22.8
	(GOST 7885), MPa	05766563-2010 with amend. 1-3 item		
11	Elongation at break, %	5.10.3	minimum 350	450

Conclusion: the product complies with TS 2294-087-05766563-2010 with amend. 1-3

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 EMStl8, ISO 14001:2015 Certificate No.31100600 UM15, ISO 45001:2018 Certificate No.31100600 OMStl8.

Scope of application: designed for the manufacture of rubber products.

Characteristics of fire and explosion hazard: According to GOST 12.1.044, rubber belongs to the group of solid combustible materials with a high smoke-forming ability. In the process of production and processing, when rubber is heated above 230°C, it is possible to release volatile products, including marginal (ethane, propane) and unsaturated (ethylene, propylene) hydrocarbons, carbon oxides. Upon contact with an open fire, it ignites without explosion and burns with a smoky flame with the formation of a melt and the release of the above-mentioned thermal degradation products.

Transportation rules: All types of transport are covered.

Type of shipment via railroad: carload. When transporting rubber packed in various types of bags in railway wagons, it is loaded into the wagon to full capacity without packaging.

When transporting rubber packed in box pallets in railway wagons, pallets are installed in 2-3 rows in height in accordance with the requirements of GOST 21650. **Storage rules:** Store the material in paper bags with a polyethylene liner in a dry, ventilated room, excluding direct sunlight, at a distance of at least 1m from heating devices and at a temperature not higher than 30 °C:

- rubber packed in bags - in stacks no more than 1.2 m high;

rubber packed in box pallets in stacks by 3–4 pallets in height.

Neutralization, disposal, and burial of wastes: Waste unsuitable for recycling does not require neutralization, is subject to removal to places agreed with the bodies of the Ministry of Emergency Situations and Environmental Safety and the Federal Service for Supervision of Consumer Rights Protection and Human Welfare (Department of Rospotrebnadzor).

Warranty period of storage: 1 year from the date of manufacture.

5th grade Laboratory Analyst

signature

O.S. Maslennikova

(power of attorney No. 36/21 dated 01.01.2021)

Stamp: Quality department

Stamp here

Date of certificate registration: 30.12.2021

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