

GUBKIN E&TC

Material Safety Data Sheet

(TS 21 1220-001-91846079-12)

Sulfur polymeric modified grinded to produce sulfur concrete, rubber products and rubber

Specifications

TS 21 1220-001-91846079-12

Orenburg

The foreword

1 Developed by the LLC "Gubkin Engineering and Technical Center", Orenburg

Polymeric modified sulfur grinded for sulfur concrete, rubber products and rubber Specifications

TS 21 1220 - 001 - 91846079-12

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This standard applies to sulfur-modified polymeric derived from the technical sulfur (GOST 127.1-93), including gas, obtained by purification of natural and coke gas, as well as off-gas of oil & shale processing by heating and rapid cooling of sulfur with the addition of a mixture of benzene derivatives as a stabilizer.

Thermostable polymeric sulfur in the presence of active additives - stabilizer (hereinafter - polymeric modified sulfur) may be used in the manufacture of sulfur concrete for road construction as a binding agent. Polymeric modified sulfur can be used as a vulcanizing agent in the manufacture of rubber products, rubber and other industries, as well as for export.

The requirements of this standard are mandatory.

1. TECHNICAL REQUIREMENTS

1.1 Polymeric modified sulfur is produced in accordance with the requirements of this standard on technological regulations, approved in a prescribed manner.

1.2 The physico-chemical parameters of the polymeric modified sulfur must conform to the standards specified in Table 1

Table 1

Name of indicator	Norm
	Grade 9800
1 Mass fraction of sulfur, %, not less than	98,00
2 Ash content, %, not more than	0,8
3 Mass fraction of acids, %, not more than	0,02
4 Mass fraction of organic additives-stabilizers, %, not more than	1,00
5 Water content, %, not more than	0,088

1.3 Indicator 5 in Table 1 are guaranteed and determined at the request of customers or regulatory agencies.

1.4. Codes of polymeric modified sulfur to produce sulfur concrete powdered, rubber products and rubber by Russian National Classification of products are given in the appendix.

1.5 Example of Ordering:

Polymeric modified sulfur grinded TS 21 9800 1220 - 001 - 91846079-12

1.6 Transport labeling - according to Russian National Classification (GOST 14192) with the application of manipulative character "Keep dry"; label 4a and classification code in accordance with GOST 19433. In addition, the shipping container is applied:

- Name, grade and class of polymeric modified sulfur;

- The batch number and date of manufacture;
- Designation of the standard.

1.7 Polymeric modified sulfur packed in five-or six-layer paper sacks brands BM, PM, BMP, VMB in accordance with GOST 2226 or in plastic sacks for chemical products in accordance with GOST 17811.

In agreement with the consumer packaged polymer modified sulfur in soft rubber-cord containers or in plastic sacks GOST 17811 invested in paper sacks in accordance with GOST 2226. Maximum gross weight of the bag (40 ± 1) kg. In agreement with the consumer gross weight of the bag (20 ± 1) kg.

Sacks are placed in bags, in accordance with GOST 26663

Permitted by agreement with the customer to unload polymer modified sulfur in the form excluding packages.

Send polymeric modified sulfur in the Far North and remote areas packed according GOST 15846.

1.8 Packaging and labeling of the polymer-modified sulfur destined for export is carried out in accordance with the requirements of this standard or contract.

2 SAFETY REQUIREMENTS

2.1 Polymeric modified sulfur - inflammable.

The melting point 120°C , the auto-ignition temperature of 190°C for GOST12.1.041.

When burned, the sulfur is formed sulfur dioxide.

Polymer modified sulfur belongs to the 4th class of danger.

The maximum permissible mass concentration in air of working zone: sulfur - 6 mg/m^3 sulfur dioxide - 10 mg/m^3 .

Polymer modified sulfur does not form additional toxic compounds in air and waste water in presence other substances and has not cumulative properties.

2.2 All of the works with polymeric modified sulfur conducted in accordance with GOST 12.3.041.

2.3 Production facilities and laboratories in which work is carried out with polymeric modified sulfur, should be equipped with mechanical supply and exhaust ventilation, ensuring compliance with the maximum permissible concentrations of harmful substances in the working area.

2.4 All workers should be provided with special clothing and personal protective equipment in accordance with GOST 12.4.011

2.5 In contact with the polymeric modified sulfur into the need to drink several glasses of warm water or a dilute solution of potassium permanganate and induce vomiting by mechanical irritation of the pharynx.

After that, drink 0.5 cups of water with 2 - 5 tablets of activated charcoal, and then rinse your mouth with water.

In all cases the sulfur poisoning, seek medical attention.

In the field of works with polymeric modified sulfur must be first aid kit.

2.6 Working with polymeric modified sulfur it is strictly forbidden to smoke and enjoy the open fire. In case of fire to put out the sand, asbestos cloth, or running water.

3 RULES OF ACCEPTANCE

3.1 Polymeric modified sulfur made by batches. The batch name the amount of sulfur, directed to one address and accompanied by the certificate of quality. The mass of the batch no more than 60 tons.

- 3.2 The certificate must contains the following information:
- Manufacturer's name and (or) its trade mark;
 - Name, grade and class of sulfur;
 - The batch number and date of manufacture;
 - The results of the tests or proof of compliance with the sulfur requirements of this standard;
 - Net weight;
 - Designation of the standard;
 - Stamp and signature of inspector.

3.3 Polymeric modified sulfur undergoes acceptance testing.

3.4 For quality control of polymeric modified sulfur select at least 1% of the packing units of the party, but not less than five sacks or two containers.

3.5 Upon receipt of unsatisfactory results of the analysis of at least one of the indicators, a second analysis of the sample obtained from twice the number of packing units of sulfur of the same batch. The results of the repeated analysis applies to the entire batch.

4 TEST METHODS

4.1 Sampling and samples preparation is carried out in accordance with GOST 127.3.

4.2 Testing of polymeric modified sulfur is carried out in accordance with GOST 127.2.

5 TRANSPORTATION AND STORAGE

5.1 The polymeric modified sulfur is transported in covered wagons or cars, covered with a tarpaulin.

5.2 Transportation of polymeric modified sulfur destined for export is carried out in accordance with the requirements of this standard or contract.

5.3 The polymeric modified sulfur stored in covered areas. Sulfur packaged in containers that can be stored in covered areas on wooden pallets to protect the sulfur from precipitation.

Bags of polymeric modified sulfur stacked in piles. Between the piles should be a passage width of at least 0.75 m

Not allowed to place sacks of polymeric modified sulfur near the water and sewer pipes and radiators.

6 WARRANTY

6.1 The manufacturer guarantees that the polymeric modified sulfur requirements of this standard subject to the conditions of transportation and storage.

6.2 The guaranteed shelf life of polymer-modified sulfur - one year from date of manufacture.

APPENDIX (informative)

Codes by Russian National Classification of products for the polymeric modified sulfur to produce sulfur concrete ground, rubber products and rubber

Name of Product

Name of Product	Codes by National Classification of products
Sulfur grinded for the production of sulfur concrete and sulfur-asphalt, as well as rubber products and rubber	
Sulfur grinded 1 st class:	21 1222 2000
grade 9800	21 1221 2060
grade 9900	21 1221 2040
Sulfur grinded 2nd class:	21 1222 2100
grade 9800	21 1221 2160
grade 9900	21 1221 2140

INFORMATION

Reference standard technical documents

Designation of technical documentation, to which reference is made	The item number, sub- item
GOST 12.1.005-88	2.1
GOST 12.1.041-83	2.1
GOST 12.3.041-86	2.2
GOST 12.4.013-85	2.4
GOST 12.4.020-82	2.4
GOST 127.2-93	4.2
GOST 127.3-93	4.1
GOST 2226-88	1.7
GOST 6613-86	1.3
GOST 14192-77	1.6
GOST 15846-79	1.7
GOST 17811-78	1.7
GOST 19433-88	1.6
GOST 21790-93	2.4
GOST 26663-85	1.7

TABLE OF CONTENTS

1 TECHNICAL REQUIREMENTS 2

2 SAFETY REQUIREMENTS 3

3 RULES OF ACCEPTANCE 4

4 TEST METHODS 5

5 TRANSPORTATION AND STORAGE 5

6 WARRANTY 6

INFORMATION. Codes by Russian National Classification of products for the polymeric modified sulfur to produce sulfur concrete ground, rubber products and rubber 6