

MARAKHOVSKIY, M., inzhener; ZAKHAROV, H., inzhener; PEKARSKAYA, G., inzhener.

Using wastes for making rubber. Pres. keep. no. 2:25 P '56. (KIRA 9:7)  
(Rubber industry and trade)

ZAKHAROV, N., insh.

Requirements of the PFV electric wire. Posh.delo 5 no.7:15-16  
Jy '59. (MIRA 12:9)

(Electric wire, Insulated)

ZAKHAROV, H. (st. Kirovo, Kalininskaya oblast').

Soldering strands of ERVPM cables without a soldering iron. Radio  
no.6:46 Ja '56. (MLRA 9:8)  
(Electric cables) (Solder and soldering)

ZAKHAROV, N.

Analysis of the financial and administrative operations of a  
Farm Mechanization Agency branch. Fir. SSSR 23 no.12:78-83  
D '62. (MIRA 16:1)

(Farm mechanization--Finance)

ZAKHAROV, N. (st. Firovo, Kalininskoy oblasti)

Charging batteries of the KRU-10 rediffusion station during low  
wind velocities. Radio no.6:50 Je '56. (MLBA 9:8)  
(Storage batteries)

ZAKHAROV, N.

AID P - 2648

Subject : USSR/Aeronautics

Card 1/1 Pub. 135 - 3/17

Author : Zakharov, N., Maj. Eng.

Title : ~~Interception of air targets~~  
Interception of air targets

Periodical : Vest. vozd. flota, 9, 17-21, S 1955

Abstract : The author reviews critically the article of Stepanko, I., Col. published under the same title in this journal, No. 2, 1955. He points out errors.

Institution : None

Submitted : No date

ZAKHAROV, N.

AID - P-137

Subject : USSR/Aeronautics

Card : 1/1

Author : Zakharov, N., Assistant Chief of USSR Civil Aviation

Title : Aviation in its Struggle for Improving Agriculture

Periodical : Kryl. Rod., 1, 5, Ja 54

Abstract : Outline of the plan for the cooperation of Civil Aviation in the improvement of Agriculture in the USSR (spreading of fertilizers, dusting, etc.). The plan was established according to the directives of the Central Committee of the Communist Party.

Institution : None

Submitted : No date

ZAKHAROV, N.

Pledges will be met. Prof.-takh. obr. 20 no.7:25 J1 '63.  
(MIRA 16:10)

1. Direktor Uspenskogo sel'skogo professional'no-tekhnicheskogo  
uchilishcha Tyumenskoy oblasti.



ZAKHAROV, N., inzh.

Fire prevention measures in seismic areas. Pozh.delo 4 no.12:26  
D '58. (MIRA 11:12)

(Fire prevention)

SHENKER, S.; GUTMAN, A.; ZAKHAROV, N.

Plasticizers for synthetic leather. *Prez. koop.* 12 no.9:10-11 S  
'58. (MIRA 11:10)

1. *Tsentral'naya nauchno-eksperimental'naya kuzhobuvnaya laboratoriya,*  
*Moskva.*  
(Leather, Artificial) (Plasticizers)

BALASHOV, B., inzh.; GERASIMOV, I., inzh.; ZAKHAROV, N., inzh.

Results of boiler operation on sulfurous mazut with the NP-102  
additive of the All-Union Scientific Research Institute of  
Petroleum and Natural Gas. Mor. flot. 24 no.8:25-26 Ag '64.  
(MIRA 18:9)

ACC NR: AP7006160 (N) SOURCE CODE: UR/0416/67/000/001/0078/0081

ATUHOR: Korotnenko, V. (Engineer, Captain 1st rank); Zakherov, N. (Engineer, Captain 2d rank); Putilov, V. (Engineer, Captain 3d rank)

ORG: none

TITLE: Corrosion protection

SOURCE: Tyl i snabzheniye sovetskikh vooruzhennykh sil, no. 1, 1967, 78-81

TOPIC TAGS: corrosion protection, anticorrosion agent, ~~anticorrosion lubricant, engine conservation~~

ABSTRACT: The ineffectiveness and various disadvantages of the use of ordinary greases (cannon grease, vaseline) for corrosion prevention of engines, mechanisms, and parts during prolonged storage is discussed. For several years liquid anticorrosion lubricants K-17, K-19, (K-17n), and NG-203 A, B, and C have been used as slushing compounds for preserving engines, mechanisms, and parts in navy depots and aboard navy vessels. Examination of pipes, turbines, high-pressure internal combustion engines, pumps, electro-compressors, and various equipment to which the liquid anticorrosion lubricants were applied during prolonged storage revealed that in all cases

Card 1/2

UDC: none

ACC NR: AP7006160

these slushing compounds are more effective than cannon grease. All equipment to which the liquid anticorrosion lubricants were applied was stored in navy depots under prescribed standard conditions. Liquid anticorrosion lubricants were applied to the 3D6 and K-150 internal combustion engines by the "working in" method; the engines were stored in boxes in open sheds at temperatures ranging from  $-28.8^{\circ}\text{C}$  to  $31.2^{\circ}\text{C}$  at an average relative humidity of 80%. Under these conditions, the NG-203B lubricant lost its initial viscosity after 18—20 months. It accumulated at various nodes of the equipment and formed dry spots on the surface of the equipment. In all cases, this lubricant was found to be less effective than the other liquid anticorrosion lubricants; it is unsuitable as a slushing compound. Both K-17 and K-17n were equally effective; they provide dependable protection of equipment during its storage over a period of four years. These two lubricants retain their initial viscosity and form a transparent protective film on the surface of the equipment stored. In some cases, K-17n forms a deposit of  $\text{NaNO}_2$  on the surface of the equipment. Physical constants and protective properties of K-17 and K-17n remain unchanged for three years. However, K-17 has higher performance characteristics than K-17n. Orig. art. has: 1 figure. [PS]

SUB CODE:  
Card 2/2

11/ SUBM DATE: none/ ATD PRESS: 5116

ZAKHAROV, N.A.

Immediate and remote results of surgical therapy of gastric and duodenal  
ulcers. Khirurgiia no.10:56-59 0 '53. (MLRA 6:11)

1. Zavednyushchiy khirurgicheskim otdeleniyem Sasovskoy rayonnoy bol'nitsy  
Ryazanskoy oblasti. (Ulcers) (Digestive organs--Surgery)

**SAKHAROV, N.A., glavnyy vrach.**

Results of work of a joint hospital. Sov.zdrav. 12 no.5:44-46 S-0 '53.  
(MIRA 6:10)

1. Sasovskaya rayonnaya bol'nitsa Ryazanskoy oblasti. (Hospitals)

ZAKHAROV, N.A., *raslushennyy vrach* RSFSR.

Preventive and therapeutic public health methods in a rural district. Sov.  
zdrav.12 no.6:38-42 H-D '53. (MLRA 6:11)

1. *Glavnyy vrach Sasovskoy rayonnoy bol'nitsy Ryazanskoy oblasti.*  
(Medicine, Rural) (Public health, Rural) (Sasovo District--Medicine)



ZAKHAROV, N. A.

Esophagus - Surgery

Trans thoracic resection of the esophagus in a district hospital, Sov. med. 17, No. 1, 1953.

9. Monthly List of Russian Accessions, Library of Congress, May 1953, Unclassified.

ZAKHAROV, N.A.

Case of primary cancer of the left wrist, simulating an atheroma. Sov.med.  
17 no.5:43 Ky '53. (MLBA 6:6)

1. Khirurgicheskoye otdeleniye Sasovskoy rayonnoy bol'nitsy Ryazanskoy  
oblasti. (Wrist--Cancer)

ZAKHAROV, N.A., zasluzhennyy vrach BSFSR.

Prevention of injuries in agriculture. Khirurgiia no.3:60-64  
Mr '54. (MIRA 7:5)

1. Zaveduyushchiy khirurgicheskim otdeleniyem Sasovskoy  
rayonnoy bol'nitsy Riazanskoy oblasti.

(ACCIDENTS,

occup. in agricultural workers, prev. in Russia)

(OCCUPATIONAL DISEASES,

accid. in agricultural workers, prev. in Russia)

(RURAL CONDITIONS,

accid. in agricultural workers, prev. in Russia)

ZAKHAROV, N.A., *nasluzhennyy vrach* RSFSR.

Statistical data on the diagnosis and therapy of gastric cancer at a district joint hospital and polyclinic; data from the Basovo District Hospital of Ryazan Province. *Khirurgia* no.11:49-54 N 154. (MIRA 8:3)  
(STOMACH, neoplasms,  
hosp. statist.)

ZAKHAROV, N.A.:

ZAKHAROV, N.A.: "The characteristics of functions of the stomach in man before and after operations for tumors and ulcerous diseases of the stomach and duodenum". Ryazan'-Sasovo, 1955. (Dissertations for the Degree of Candidate of Medical Sciences.)

So. Kpizhnaya letonis'. No. 49, 3 December 1955. Moscow.

ZAKHAROV, N.A.

Agricultural injuries and their control. Sov.med. 19 no.4:66-69 Apr  
'55. (MLRA 8:6)

1. Zasluzhennyy vrach RSFSR, sav.-khirurgicheskim oddeleniyem Sa-  
sovskoy rayonnoy bol'nitsy Ryazanskoy oblasti.  
(WOUNDS AND INJURIES, prev. and control,  
in agriculture in Russia)  
(AGRICULTURE,  
inj., prev. in Russia)

ZAKHAROV, M.A.

Drainage of the pleural cavity. Khirurgia 32 no.8:68-69 Ag '56.  
(MLRA 9:12)

1. Iz khirurgicheskogo otdeleniya Sosovskoy rayonnoy bol'nitsy  
Ryazanskoy oblasti.

(DRAINAGE, SURGICAL) (PLEURA--SURGERY)

ZAKHAROV, N.A., zaslushennyy vrach RSFSR.

Surgery in acute conditions of the abdominal organs. Sov.zdrav.  
16 no.3:29-33 Mr '57. (MIRA 10:6)

(ABDOMEN, ACUTE, surg.

management of urgent surg. cases in rural cond.  
in Russia)

(RURAL CONDITIONS

management of urgent surg. cases of acute abdom.  
in Russia)



ZAKHAROV, N.A., dotsent

Surgical treatment of cardiospasm. Khirurgia no.12:29-35 '61.  
(MIRA 15:11)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (zav. - prof. I.Ye.  
Matsuyev) Ryazanskogo meditsinskogo instituta imeni P.P.  
Pavlova.

(CARDIOSPASM)

**ZAKHAROV, N.A., dotsent**

Diagnosis and treatment of spasm and stenosis of Oddi's sphincter.  
Sov.med. 26 no.12:17-22 D '62. (MIRA 16:2)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (zav. - prof. I.Ye. Matsuyev) Ryazanskogo meditsinskogo instituta imeni Pavlova.  
(BILE DUCTS—DISEASES) (BILE DUCTS—SURGERY)

ZAKHAROV, N.A., general-leutenant inzhenerno-tekhnicheskoy sluzhby

The 30<sup>th</sup> anniversary of the State Institute of Civil Aeronautics.  
Zashch. rast. ot vred. i bol. 6 no.7:4-7 J1 '61. (MIRA 16:5)

1. Nachal'nik Gosudarstvennogo nauchno-issledovatel'skogo instituta  
Grazhdanskogo vozdushnogo flota.

(Aeronautics in agriculture)  
(Plants, Protection of)

ACCESSION NR: AP4026851

8/0065/64/000/004/0036/0039

AUTHORS: Gerasimov, I.I.; Koretnenko, V.P.; Zakharov, N.A.; Putilov, V. Ye.; Sharapov, V.D.

TITLE: The profitableness of using liquid conservation lubricants for the protection of maritime equipment

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 4, 1964, 36-39

TOPIC TAGS: preservation lubricant, conservation lubricant, grease, oil, liquid conservation lubricant, economics, cost reduction, labor reduction, K-17 conservation lubricant, K-19 conservation lubricant, application

ABSTRACT: The drawbacks of conservation greases and the economies effected by liquid lubricants are discussed. Cost estimates are based on the application of K-17 and K-19 liquid conservation lubricants introduced in 1959 by the VNIINP. Examples are given of savings in labor due to the comparative ease of applying the liquid materials in comparison to the solid, and the longer preservation effected (3 years) by the liquid materials, eliminating need for

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ACCESSION NR: AP4026851

annual reapplication. Although the initial cost of the liquid lubricants is high, much less K-17 or K-19 is required for protection: film thicknesses of only 0.05-0.1 mm. are required in comparison to 2.5-3 mm. coatings of greases. The liquid materials can be applied cold; other conservation lubricants must be heated themselves and applied to heated surfaces. The liquid materials can be readily removed; the dismantling of machinery associated with grease removal is not required. Orig. art. has: 2 tables.

ASSOCIATION: None

SUBMITTED: 00

DATE ACQ: 28Apr64

ENCL: 00

SUB CODE: FL)

NR REF SOV: 000

OTHER: 000

Card

2/2

ZAKHAROV, N.D.

USSR/Fern Animals. - Reindoor

Q-4

Abs Jour : Ref Zhur - Biol., No 6, 1958, No 26199

Author : Zakharov N.D.

Inst : Not Given

Title : Early-Spring Castration of Reindoor (Tannovosomnaya kastrotsiya  
olonoy)

Orig Pub : Biol. nauchno-tokhn. inform. Yekutskogo n.-i. in-ta n. kh.,  
1957, 1, 29-31

Abstract : No abstract

Card : 1/1

40

5(2), 5(3)

SOV/153-2-3-23/29

AUTHOR:

Zakharov, N. D.

TITLE:

On the Problem of the Formation of Structure of Carboxyl-containing Rubbers

PERIODICAL:

Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1959, Vol 2, Nr 3, pp 430-436 (USSR)

ABSTRACT:

The author used for his investigations the carboxyl-containing rubbers SKS-30-1 and SKS-50-1 - copolymers of butadiene, styrene, and of metacrylic acid with different styrene content. The major part of the investigations was made with a rubber SKS-50-1 with a content of 0.025 - 0.035 g-equ carboxyl groups per 100 g rubber. After adding various substances to the polymer solution the structure-forming effect of the substance concerned was investigated in the subsequent gelling of the solution. A gelling of the solution was observed only if the addition had a structure-forming effect. For the investigations a 4.15% solution of rubber in isopropyl benzene was used. Each change of the viscosity was given a number of from 0 to 3 (Table 1) according to its intensity, which is a measure for its structure-forming effect. Table two shows the measuring numbers for a series of additions at different temperatures (25-130°) and after different periods (0.25 - 24 hours). Metallic

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SOV/153-2-3-23/29

On the Problem of the Formation of Structure of Carboxyl-containing Rubbers

oxides, -hydroxides, -carbonates, and -chlorides but also organic compounds were investigated as additions. Aluminum chloride, sodium- and potassium hydroxide, the oxides of calcium and magnesium and the hydrate of calcium oxide have the strongest structure-forming effect. It was found that the number of the chemical cross compounds in metallic oxide vulcanizates of carboxyl rubbers is considerably lower than in the corresponding sulphur vulcanizates. The number of the nodal points of the crystal lattice depends on the type of the vulcanizing agent. Magnesium oxide gives the densest trimer structure. The author showed that in the structuration of carboxyl-containing rubbers the non-chemical intermolecular compounds play an important part. This could be concluded from the investigations on the relaxation stress (Table 3, Figs 1, 2) and the determination of the equilibrium modulus (Fig 3) according to the method of Leshnev and Zuyev (Ref 8). These compounds are assumed to be coordinative Van der Waals hydrogen compounds. Table 3 gives a survey on the stress of the rubbers vulcanized with MgO, CaO and ZnO in a stretching by 200%. The students G. I. Komarova and T. A. Shadricheva took part in the experimental work. There are 4 figures, 3 tables, and 10 references, 5 of which are Soviet.

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SOV/153-2-3-23/29

On the Problem of the Formation of Structure of Carboxyl-containing Rubbers

ASSOCIATION: Yaroslavskiy tekhnologicheskii institut  
(Yaroslavl' Technological Institute).  
Kafedra tekhnologii reziny  
(Chair of Rubber Technology)

SUBMITTED: September 11, 1958

Card 3/3

ZAKHAROV, N. D.

"Materials for an Artificial Leather Containing Hydrophil Groups." Min Higher  
Education USSR, Moscow Technological Inst of Light Industry imeni L. M. Kaganovich,  
Moscow, 1953  
(Dissertations for the Degree of Candidate of Technical Sciences)

SO: Knizhnaya Letopis', No. 32, 6 Aug 55

OREKHOV, S.V., DOGADKIN, B.A., ZAKHAROV, N.D

Covulcanization of various polymers in the production of rubber and the non-uniformity of vulcanizates based on different rubber combinations.

Report submitted for the 4th Scientific research conference on the chemistry and technology of synthetic and natural rubber, Yaroslavl, 1962

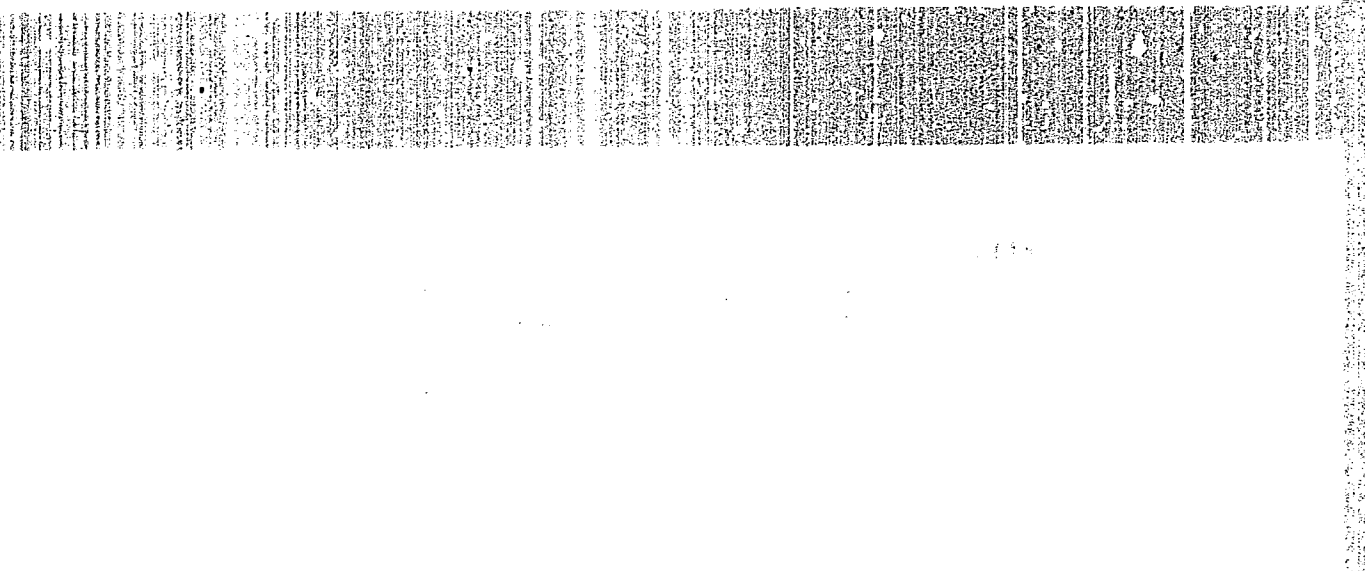
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**CIA-RDP86-00513R001963520015-9**

**APPROVED FOR RELEASE: 03/15/2001**

**CIA-RDP86-00513R001963520015-9"**



SOV/138-58-12-4/17

AUTHORS: Zakharov, N. D. and Shirayev, B. A.

TITLE: Vulcanisation of Some Synthetic Rubbers Without Sulphur (Nesernaya vulkanizatsiya nekotorykh sinteticheskikh kauchukov). First Communication. Thermo-Vulcanisation of Butadiene-Styrene Rubbers. (Soobshcheniye 1. Thermo-vulkanizatsiya butadiyen-stirol'nykh kauchukov)

PERIODICAL: Kauchuk i Rezina, 1958, Nr 12, pp 11 - 15 (USSR)

ABSTRACT: B. A. Dogadkin et al. (Ref. 1) found that carbon black-containing mixtures of SKB, SKS-30 show the typical effect of vulcanisation when heated at 180 - 200°C. Experiments were carried out on the thermo-vulcanisation of various types of nitrile rubbers, and also on the effect of some additives and conditions on the process of vulcanisation and on the properties of the rubbers. The rubbers SKN-40, SKN-26 and SKN-18 containing 36.24, 26.98, 19.10% acrylonitrile respectively were tested. These were vulcanised at 143, 153, 163, 173, 183 and 193°C for 20, 40, 60 and 120 minutes. Figs. 1, 2 and 3 show that there is practically no thermo-vulcanisation of SKN-18 and SKN-26 at 143°C, but thermo-vulcanisation is obtained from SKN-40 when heated from 90 to 120 minutes. On increasing the temperature to 183°C the modulus and the

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SOV/138-58-12-4/17

## Vulcanisation of Some Synthetic Rubbers Without Sulphur

strength increase continuously, but the relative and residual elongation decrease. No improvement in the properties were observed when heating to 193°C. Curves showing the dependence of the properties of the vulcanisates on the time of vulcanisation change in character (Figs. 4 and 5). The temperature at which thermo-vulcanisation proceeds at sufficiently fast rate, and the properties of the vulcanisates, depend on the type of the rubber, i.e. on the content of nitrile groups in the rubber. This rate increases on increasing the temperature in the same way as during vulcanisation with sulphur. Table 1 shows some characteristics of the thermo-vulcanisates which have the highest degree of strength. Similar results were obtained during the thermo-vulcanisation of rubber mixtures which did not contain fillers. Thermo-vulcanisation can also be observed in rubbers containing other fillers. SKH-26 mixture, containing kaolin, was vulcanised for 60 minutes at 196°C, and the thermo-vulcanisate showed strength of 58 kg/cm<sup>2</sup> and 22.2 kg/cm<sup>2</sup> modulus at 300% elongation. Comparative tests were carried out with sulphur-vulcanisates

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SOV/138-58-12-4/17

Vulcanisation of Some Synthetic Rubbers Without Sulphur

of nitrile rubbers prepared from standard mixtures which were vulcanised for 40 minutes at 143°C. Samples of thermo-vulcanisates containing fillers were also prepared; these were vulcanised for 60 minutes at 183°C (Table 2). Thermo-vulcanisates were shown to have poorer properties than the sulphur vulcanisates with respect to their strength and relative elongation, and also in their resistance to ageing. They are of soft consistency and less thermo-stable. The intermolecular bonds are of greater importance in these vulcanisates than in sulphur vulcanisates. Tests were carried out on comparing the degree of ageing of the two types of rubber vulcanisates at 120°C for 72 hours. Their frost resistance and brittleness were also investigated, and it was found that thermo-vulcanisates are more frost-resistant than sulphur vulcanisates. Metal oxides, when used as additives, increase the rate of vulcanisation and improve the physico-mechanical characteristics of thermo-vulcanisates (Fig.6). Acidic substances (such as concentrated sulphuric acid) and metal chlorides (such as  $ZnCl_2$ ,  $AlCl_3$  and  $FeCl_3$ ) also influence

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Vulcanisation of Some Synthetic Rubbers Without Sulphur SOV/138-58-12-4/17

the vulcanisation process. When using the latter substance vulcanisation occurs at 143°C. There are 6 Figures, 2 Tables and 3 References: 1 English and 2 Soviet.

ASSOCIATION: Yaroslavskiy tekhnologicheskii institut i shinnyy zavod (Yaroslavl' Institute of Technology and the Tyre Plant)

Card 4/4

ACCESSION NR: APL026364

s/0138/64/000/003/0012/0015

AUTHORS: Zakharov, H. D.; Orekhov, S. V.; Dogadkin, B. A.; Tyuremova, Z. D.;  
Bogdanovich, N. A.; Glavina, V. S.

TITLE: Effect of covulcanization on the properties of mixes of nairit with  
other rubbers

SOURCE: Kauchuk i rezina, no. 3, 1964, 12-15

TOPIC TAGS: rubber, nairit, SKS 30, SKN 18, SKN 26, vulcanization, covulcaniza-  
tion, rubber compatibility, optical density, butadiene nitrile rubber, butadiene  
styrene rubber, additive property, vulcanization rate synchronization

ABSTRACT: The covulcanization of nairit with butadiene-styrene (SKS-30) and  
butadiene-nitrile rubbers (SKN-18 and SKN-26) was studied. As a preliminary step,  
the compatibility of these rubbers was investigated by three methods. The first  
method consisted of mixing 2.5% and 5.0% chloroform solutions of the rubbers,  
allowing them to stand up to 6 months, then recording their tendency to separate out.  
Secondly, measurements were made of the optical density of various mixtures of  
chloroform solutions of the rubbers. The third method determined the tensile  
strength of nonvulcanized plasticized rubber mixtures containing 50% lampblack.  
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ACCESSION NR: AP4026364

The system nairit + SKN-18 proved to be the most compatible by all three methods. It was found that an optimum vulcanization system for a mixture of two rubbers cannot be prepared by just putting together the ingredients which show the best performance in each, since they do not necessarily cross-link and bind the structure of one rubber to that of the other. Thus, it was found that in the case of nairit + SKN-18 the use of metal oxides and sulfur was rather harmful, yielding poor quality vulcanizates, while the incorporation of thiuram and metal oxides without sulfur was beneficial. This was in accord with the finding that in the absence of sulfur, the optimum vulcanization time was the same for a compound on a nairit base and for one on an SKN-18 base. The importance of synchronization of the rate of vulcanization of each rubber component in order to obtain vulcanizates with optimum properties, is stressed. Orig. art. has: 4 figures and 1 table.

ASSOCIATION: Yaroslavskiy tekhnologicheskii institut (Yaroslav Technological Institute); Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M. V. Lomonosova (Moscow Institute of Fine Chemical Technology); Yaroslavskiy zavod rezinovy\*kh tekhnicheskikh izdeliy  
Card 2/3

ACCESSION NR: AP4026364

(Yaroslav Plant of Rubber Technical Products)

SUBMITTED: 00

DATE ACQ: 17Apr64

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SUB CODE: GC, MT

NO REF SOV: 009

OTHER: 001

Card 3/3

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REC NR: AP6000986

(A)

SOURCE CODE: UR/0206/6\*/000/022/0060/0060

AUTHORS: Makova, N. M.; Fardarov, M. I.; Vinogradov, P. A.; Zakharov, N. D.; Gaychinova, K. Ya.

TITLE: A method for obtaining synthetic rubber. <sup>5141</sup> Class 39. No. 176410 <sup>5</sup> announced by Yaroslavl Technological Institute (Yaroslavskiy tekhnologicheskij institut)

... (secretely) ... no. 22, 1965, 60

TOPIC TAGS: polymer, polymerization, copolymerization, synthetic rubber, rubber

ABSTRACT: This Author Certificate presents a method for obtaining synthetic rubber by low-temperature polymerization of dienes or copolymerization of the ... monomers in an aqueous emulsion ... process is ...

SUB CODE: 11/ SUBM DATE: 10Jul63

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Card 1/1 *sc*

UDC: 678.762.2-134.622



GOKHSHEYN, D.P., prof.; ZAKHAROV, N.D., inzh.

Use of an entropy method in the analysis of the operation of the turbine department of an electric power plant. Izv. vys. ucheb. zav.; energ. 9 no.1:47-53 Ja '66.  
(MIRA 19:1)

1. Odesskiy tekhnologicheskiy institut imeni M.V. Lomonosova.

ACC NR: AP7000911

(A)

SOURCE CODE: UR/0138/06/000/012/0011/0013

AUTHOR: Koldunovich, Yo. B.; Epshteyn, V. G.; Zakharov, N. D.; Polyak, M. A.;  
Crokhov, S. V.; Murashova, L. A.; Dokiyenko, A. K.

ORG: Yaroslavl Technological Institute (Yaroslavskiy tekhnologicheskii institut)

TITLE: Use of an SKD rubber-Nairit combination in the manufacture of commercial rubber products

SOURCE: Kauchuk i rezina, no. 12, 1966, 11-13

TOPIC TAGS: butadiene rubber, chloroprene rubber, synthetic rubber

ABSTRACT: The possibility of using combinations of cis-1,4-butadiene rubber (SKD) with Nairit (chloroprene rubber) in the production of commercial rubber products was investigated by introducing SKD into Nairit-base mixtures for V-belts, compression layers of V-belts, and so on. SKD was found to impart a satisfactory moldability, improve the calenderability, and markedly decrease the adhesiveness of the mixtures. Nairit vulcanizates combined with SKD have a high ozone resistance. SKD lowers the brittleness temperature of the vulcanizates, substantially decreases their residual compressive strain, and lowers the heat production. V-belts prepared by using SKD in the compression layer were found to have longer service lives than ordinary mass-produced V-belts. Orig. art. has: 2 tables.

SUB CODE: 11/ SUEM DATE: 10Jun66/ ORIG REF: 001/ OTH REF: 004

Card 1/1

UDC: 678.762.2+678.763.2:678.06:62.002.2

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...EFFECT OF THE MOLECULAR WEIGHT OF EPOXY RESINS ON THE ...



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1 1980 22

ZAYKHANOV, N.D.; OREKHOV, S.V.; LOGANZIN, B.A.; TYUREMIKOVA, Z.D.;  
BOGLANOVICH, N.A.; GLAVINA, V.S.

Effect of co-vulcanization on the properties of compounds made  
from a combination of nairit with other rubbers. Kauch. i rez.  
23 no. 3:12-15 Mr '64. (MIRA 17:5)

1. Yaroslavskiy tekhnologicheskii institut, Moskovskiy institut  
tonkoy khimicheskoy tekhnologii im. M.V.Lomonosova i Yaroslavskiy  
zavod rezinovykh tekhnicheskikh izdeliy.

ACCESSION NR: AT4029930

S/3087/62/001/000/0169/0182

AUTHOR: Zakharov, N. D.]

TITLE: Changes in the structure and properties of carboxyl caoutchouc vulcanizers during heating

SOURCE: Yaroslavl'. Tekhnologicheskii institut. Khimiya i khimicheskaya tekhnologiya, vol. 1, 1962, 169-182

TOPIC TAGS: structure, property, carboxyl caoutchouc, vulcanizer, vulcanization, epoxy resin, metal oxide, peroxide, sulfur

ABSTRACT: In this paper the author presents the results of investigating the changes of structure and properties of rubber based on the carboxyl caoutchouc SKS-30-1, vulcanized with the aid of metal oxide, metal oxide and sulfur or thiuram, metal oxide and peroxide, metal oxide, and epoxy resin E-41. The basic portion of the investigation was conducted on unfilled mixtures of simple composition to eliminate, to the greatest degree, the effect of different types of supplementary factors. The results are presented in graphs and tables. The authors showed that there is a difference in the structure of carboxyl caoutchouc vulcanizers in the use of different vulcanization systems. The most expedient method of vulcanization -- with

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ACCESSION NR: AT4029930

the aid of metal oxides, metal oxides and epoxy resin, metal oxides and peroxides -- was two staged. The hypothesis expressed was that the phenomenon of improving the vulcanizer properties during heating in a thermostat results from recombination of mobile salt bonds. Orig. art. has: 10 figures and 3 tables.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 29Apr64

ENCL: 00

SUB CODE: CH

NO REF SOV: 008

OTHER: 001

Card 2/2

8/3087/62/001/000/0159/0168

ACCESSION NR: AT4029929

AUTHOR: Zakharov, N. D.; Smirnova, T. N.

TITLE: The effect of some compound and technological factors on the cold resistance of rubber:

SOURCE: Yaroslavl'. Tekhnologicheskii institut. Khimiya i khimicheskaya tekhnologiya, vol. 1. 1962, 159-168

TOPIC TAGS: vulcanization temperature, cold resistance, sulfur dose, filler, butadiene-nitro caoutchouc, SKN-40 caoutchouc, SKN-26 caoutchouc, SKS-30 caoutchouc

ABSTRACT: The authors investigated the effect of the type of filler, the character of the vulcanizing group and the vulcanization temperature on the cold resistance of rubber. Three types of caoutchouc were used: SKN-40, SKN-26, and SKS-30. The results of the investigation are presented in tables and graphs. It was shown that butadiene-nitro caoutchouc differed substantially in their behavior at low temperatures under the influence of the type of filler, sulfur dose, and vulcanization temperature from butadiene styrene caoutchouc (nonpolar caoutchouc). It was shown that with the use of the respective filler, the decrease in the sulfur dose, a choice of accelerator and an increase in vulcanization temperature substantially

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ACCESSION NR: AT4029929

increased the indices of cold resistance of rubbers based on nitro caoutchouc; hence, it followed that in comparing the rubber formulas based on nitro caoutchouc it was impossible to disregard these factors. Some explanations were given of the characteristics of behavior of nitro caoutchouc at low temperatures. Orig. art. has: 3 tables and 3 figures.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 29Apr64

ENCL: 00

SUB CODE: CH

NO REF SOV: 010

OTHER: 002

Card 2/2

GOLKOVA, V.Ya.; ZAKHAROV, N.D.; POLYAK, M.A.; ANDRASHNIKOV, B.I.;  
KUSOV, A.B.

"English-Russian dictionary on caoutchouc, rubber and synthetic fibers" by F.I. IAshunskaiia, I.E. Feigin. Reviewed by V.IA. Golkova and others. Kauch. i rez. 23 no.1:57-58 Ja '64. (MIRA 17:2)



ZAKHAROV, N.D.; SMIRNOVA, T.N.

Effect of some formulas and technological factors on the frost  
resistance of rubber. Khim. i khim. tekhn. 1:159-168 '62.  
(MIRA 17:2)

ZAKHAROV, N.

Unloader of organic fertilizer. Prof.-tekh.obr. 20 no.10:24-25  
0 '63. (MIRA 16:12)

1. Direktor sel'skogo professional'no-tekhnicheskogo uchilishcha  
No.1, Tyumenskaya obl.

ZAKHAROV, N.D.; PODERUKHINA, V.M.

Structure and properties of vulcanizates made from chlorosulfonated polyethylene. Kauch. i rez. 22 no.10:9-14 0 '63. (MIRA 16:11)

1. Yaroslavskiy tekhnologicheskii institut i Yaroslavskiy zavod rezinovykh tekhnicheskikh izdeliy.

MIRONOVA, N.M.; VINOGRADOV, P.A.; FARBBEROV, M.I.; GAVSHINOVA, K.Ye.;  
ZAKHAROV, N.D.; FELCROVA, K.F.

Synthesis of butadiene and methyl methacrylate copolymers and  
the basic properties of sulfurous vulcanizates made on their  
base. Kauch. i rez. 22 no.10:1-5 0 '63. (MIRA 16:11)

1. Yaroslavskiy tekhnologicheskii institut i Yaroslavskiy zavod  
sinteticheskogo kauchuka.

ZAKHAROV, N.D.; BOGDANOVICH, N.A.; TYUREMNOVA, Z.D.; GLAVINA, V.S.

Role of sulfur in the vulcanization of polychloroprene rubbers.  
Vyssokom.seed. 5 no.6:910-913 Je '63. (MIRA 16:9)

1. Yaroslavskiy tekhnologicheskii institut i Yaroslavskiy zavod  
rezinovykh tekhnicheskikh izdeliy.  
(Vulcanization) (Sulfur) (Chloroprene)

**"APPROVED FOR RELEASE: 03/15/2001**

**CIA-RDP86-00513R001963520015-9**

**APPROVED FOR RELEASE: 03/15/2001**

**CIA-RDP86-00513R001963520015-9"**



ZAKHAROV, N.D.

"Theoretical problems in geography" by V.A.Anuchin. Reviewed by  
N.D.Zakharov. Vest.LGU 17 no.6:153-156 '62. (MIRA 1514)  
(Geography) (Anuchin, V.A.)



ZAKHAROV, N.D.; SHADRICHEVA, T.A.

Effect of acids on the scorching and vulcanization of carboxylic rubbers. Izv.vys.ucheb.zav.;khim.i khim.tekh. 4 no.3:492-497 (MIRA 14:10) '61.

1. Yaroslavskiy tekhnologicheskii institut, kafedra tekhnologii reziny.

(Rubber, Synthetic)  
(Acids, Organic)  
(Vulcanization)

ZAKHAROV, N.D.; BOGDANOVICH, N.A.; VOLKOVA, M.I.

Reclaimed rubber from butadiene-nitrile raw rubbers. *Izv.vys.*  
ucheb.zav.;khim. i khim.tekh. 3 no.3:527-533 '60. (MIRA 14:9)

1. Yaroslavskiy tekhnologicheskii institut i yaroslavskiy  
zavod rezino-tekhnicheskikh izdeliy, kafedra tekhnologii reziny.  
(Rubber, Reclaimed) (Butadiene)

30305  
S/081/62/000/005/109/112  
B168/B101

15.9200  
AUTHORS:

Zakharov, N. D., Bykova, S. A.

TITLE:

Non-sulfur vulcanization of certain synthetic rubbers

PERIODICAL:

Referativnyy zhurnal. Khimiya, no. 5, 1962, 648, abstract  
5P323 (Uch. zap. Yaroslavsk. tekhnol. in-ta, v. 6, 1961,  
121-130)

TEXT: The properties of vulcanized rubbers and the process of vulcanization of nitrile rubbers with various inorganic bases (NaOH, KOH, Ca(OH)<sub>2</sub>, Ba(OH)<sub>2</sub>) were investigated. The rate of cross-linking increases with the percentage of nitrile groups in the raw rubber and with the vulcanization temperature. The process is accelerated in the presence of 5 parts by weight of substances, such as water, starch or glucose, containing OH. A variation in the proportion of the base has a particularly noticeable effect in the case of NaOH. If the proportion of NaOH is raised to 10 parts by weight vulcanized rubbers of type CKH-40 (SKN-40) with a breaking

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Non-sulfur vulcanization of...

S/081/62/000/005/109/112  
B168/B101

strength  $> 250 \text{ kg/cm}^2$  are obtained in a vulcanization time of 15 min. Acceleration of the cross-linking process compared with heat vulcanization in the presence of bases takes place in unfilled and filled vulcanized rubbers. Rubbers produced with bases occupy an intermediate position, as far as their properties are concerned, between sulfur-vulcanized and heat-vulcanized rubbers. The moduli, frost resistance, and resistance to heat aging are higher in these vulcanized rubbers than in the sulfur-vulcanized or heat-vulcanized products of the corresponding raw rubbers. Polybutadiene rubbers do not cross-link under the action of bases; butadiene/styrene rubber does cross-link, but less than nitrile rubbers. [Abstracter's note: Complete translation.]

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S/081/62/000/005/110/112  
B168/B101

15,9100  
AUTHORS:

Zakharov, N. D., Razheva, A. M.

TITLE:

Epoxy resins as vulcanizing agents for certain polar rubbers

PERIODICAL:

Referativnyy zhurnal. Khimiya, no. 5, 1962, 648, abstract  
5P324 (Uch. zap. Yaroslavsk. tekhnol. in-ta, v. 6, 1961,  
133-143)

TEXT: Rubber ККС-30-1 (SKS-30-1), which contains carboxyl, vulcanizes slowly with the epoxy resins Э-40 (E-40) and Э-41 (E-41) in a press. Vulcanization is accelerated in the presence of 2-methyl-5-vinyl pyridine (I). Valuable vulcanized rubbers are produced in practice under the combined action of E-41 and MgO, the process of vulcanization here being substantially accelerated. Epoxy resin has a less detrimental effect on sulfur vulcanization of copolymers containing carboxyl. An increase in the proportion of I increases the strength, specific elongation, and moduli of the vulcanized rubbers, and it accelerates vulcanization. The links which form during vulcanization are destroyed by acetic acid. E-41 slightly

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Epoxy resins as vulcanizing agents...

S/081/62/000/C05/110/112  
B168/B101

increases scorching of the compound; the aging coefficient of the vulcanized rubbers approaches 1 when the resin is introduced. It is advisable to carry out combined vulcanization in two stages: the first (short) stage in the press and the second (~3 hrs) in the thermostat. The above pattern also applies in the case of filled vulcanized rubbers. E-41 actively vulcanizes vinyl pyridine rubbers (CKMBII-15 - SKMVP-15), but after vulcanization the breaking strength is  $\leq 60$  kg/cm<sup>2</sup>, the specific elongation 460 %, and the residual elongation 8 %. [Abstracter's note: Complete translation.]

X

Card 2/2

S/153/61/004/003/006/008  
E142/E435

**AUTHORS:** Zakharov, N.D. and Shadricheva, T.A.  
**TITLE:** Effect of acids on the scorching and vulcanization of carboxyl rubbers

**PERIODICAL:** Izvestiya vysshikh uchebnykh zavedeniy, Khimiya i khimicheskaya tekhnologiya, Vol.4, No.3, 1961, pp. 492-497

**TEXT:** The authors investigated the effect of a number of acids on the scorching and vulcanization of butadiene-styrene carboxyl rubbers. Their experiments were carried out with the rubber CKC-30-1 (SKS-30-1) by adding 0.05 g - equivalent of mono- and polybasic acids to 100 g of rubber. The composition of the mixture (in parts per weight) was - rubber 100, sulphur 0.1, thiuram 3.0, stearic acid 2.0, magnesium oxide 7.0, zinc oxide 7.0. Scorching was determined by a standard method used for defining the degrees in plasticity (at 70°C) after heating at 100°C. Experiments showed that some relatively strong monobasic acids hardly lower scorching and at the same time eliminate the strengthening effect of metal oxide vulcanization. The effect of other acids such as benzoic, boric and chloracetic, o-phosphoric

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Effect of acids on ...

S/153/61/004/003/006/008  
E142/E435

and oleic acids is discussed. Polybasic acids and their anhydrides reduce scorching but simultaneously inhibit vulcanization. It was found that maleic anhydride gives the most satisfactory results. Phthalic anhydride is recommended as a vulcanization regulator (Ref.2: H.Brown, C.Gibbs, Industr. and Engng. Chem., 47, 344 (1955)) as it reduces considerably the rate of vulcanization. Succinic and citric acids are very good scorching inhibitors. The regulation effect of the acids during the preparation of rubber mixture and their vulcanization (Ref.3: H.P.Brown. Rubber Chem. and Technol., 30, 1347 (1957)) is attributed to one or several of the following reactions:

- 1) Breaking up of the crosslinks and the subsequent reduction.
- 2) Reaction with the metal oxide which was partly neutralized by the carboxyl groups of the polymer.
- 3) Formation of salts with the non-reacted metal oxide.

The effect of polybasic acids is due to their multiple functions which leads to the formation of crosslinks, for instance of the type:  
- COOMgOOCRCOOMgOOC - polymer. During investigations on vulcanization with magnesium stearate, it was found that this compound practically eliminates scorching, affects vulcanization

Card 2/3



Effect of acids on ...

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E142/E435

only to a slight degree and improves some of the properties of the vulcanizates (e.g. the reaction rate of the carboxyl groups of the polymers, plasticity, strength, residual elongation). These phenomena can be explained by the better distribution of the stearate and the subsequent effect of the liberated stearic acid on the vulcanization. This assumption is also proved by the fact that a large number of salt crosslinks (an increase from 17 - 22% to 60 - 70%) is formed during combined vulcanization in the presence of magnesium stearate. Acknowledgments are expressed to the student I. Berezkin for assistance in the tests. There are 4 tables and 4 references: 1 Soviet and 3 non-Soviet. The three references to English language publications read as follows:  
Ref. 2: - typed in text; Ref. 3: - typed in text;  
Ref. 4: J. Green, E. F. Sverdrup. Industr. and Engng. Chem. 48, 2138 (1956).

ASSOCIATION: Yaroslavskiy tekhnologicheskii institut  
Kafedra tekhnologii reziny (Yaroslav Technological  
Institute, Department of Rubber Technology)

SUBMITTED: May 20, 1960

Card 3/3

ZAKHAROV, N.D.; BEREZKIN, I.N.

Vulcanization of carboxyl rubbers with peroxides. Kauch. i rez.  
20 no.10:7-10 0 '61. (MIRA 14:12)

1. Yaroslavskiy zavod rezino-tekhnicheskikh izdeliy i Yaroslavskiy  
tekhnologicheskii institut.  
(Carboxyl group) (Vulcanization)  
(Rubber, Synthetic)

ZAKHAROV, H.D.

Structuration of carboxyl-containing rubbers. *Izv.vys.ucheb.  
zav.; khim.i khim.tekh.* 2 no.3:430-436 '59. (MIRA 13:8)

1. Yaroslavskiy tekhnologicheskii institut, kafedra tekhnologii  
reziny. (Rubber) (Carboxyl group)

S/138/60/000/006/002/003  
AC51/A029

AUTHORS: Zakharov, N.D., Makarova, L.V.

TITLE: The Effect of Certain Organic Compounds on the Vulcanization Process of Nairite <sup>15</sup>

PERIODICAL: Kauchuk i Rezina, 1960, No. 6, pp. 23 - 26.

TEXT: The effect of a group of organic compounds, such as substances of the diamine, phenol groups, etc., on the vulcanization of nairite mixtures was investigated, since the main disadvantage of nairite lies in its tendency to scorching and in some cases to slow vulcanization. The experimental procedure is outlined. The investigations were carried out on non-filled mixtures of the following composition: (in weight parts) nairite 100.0, magnesium oxide 7.0, zinc oxide 5.0. The other experimental data are listed. Figure 1 shows the effect of adding various organic compounds on the value of the equilibrium modulus of the vulcanizates. All the investigated compounds, with the exception of diazoaminobenzene, were found to accelerate the vulcanization process of nairite, i.e., they increase the number of cross bonds. The investigated substances can be arranged

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S/138/60/000/C06/002/008  
A051/A029

The Effect of Certain Organic Compounds on the Vulcanization Process of Neirite

in the following sequence: n-phenylenediamine > thioureaformaldehyde resin > ethylenediamine > resorcin > monoethanolamine > pyrogallol > n-anisoyldi-phenylthiourea. Figure 2 shows the effect of adding the organic substances on the kinetic vulcanization of the mixtures. It is pointed out that the introduction of a number of the investigated substances significantly decreases the vulcanization level. Some of the effective accelerators of vulcanization (monoethanolamine, triethanolamine, and ethylenediamine) decrease the tendency of the mixtures to scorching to a certain extent. It was found that monoethanolamine, ethylenediamine, and pyrogallol are of the greatest interest in accelerating the vulcanization process and in their effect on the physico-mechanical properties. Figure 5 shows the change in the tear resistance of the non-filled mixtures depending on the amount of accelerator added. The best mechanical properties of the vulcanizates were obtained by adding ethylenediamine and triethanolamine (1 weight part). In the case of carbon black-containing mixtures, the best results are achieved in the presence of ethylenediamine triethanolamine. In addition

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S/138/60/000/006/002/000  
A051/A029

The Effect of Certain Organic Compounds on the Vulcanization Process of Nairite

to this fact, mixtures containing triethanolamine have a characteristic elevated resistance to scorching. There are 3 tables, 8 figures and 6 references: 3 Soviet, 2 English and 1 German.

ASSOCIATION: Yaroslavskiy tekhnologicheskij institut (Yaroslavl' Technology Institute).

Card 3/3

82724

S/138/59/000/012/004/006

15.9120

AUTHORS: Zakharov, N. D., Poroshin, G. V.TITLE: The Non-Sulfur Vulcanization of Synthetic Rubbers. Communi-  
cation 2: The Vulcanization of Butadiene-Nitrile Rubbers Using  
Certain Metal Chlorides <sup>15</sup> <sub>16</sub>

PERIODICAL: Kauchuk i Rezina, 1959, No. 12, pp. 14-18

TEXT: The authors have investigated the vulcanization process of CKH (SKN) rubbers using zinc chloride and a few other metal chlorides. The mixture investigated is given and the experimental procedure is described. The porosity is eliminated and the physico-mechanical properties of the vulcanizates are improved with the addition of moisture during the vulcanizing process. Fig. 1 shows how the moisture quantity affects the vulcanizate properties based on SKN-40 rubber with 5 weight parts of  $ZnCl_2$  (at  $143^{\circ}C$ , the vulcanization process lasting 10 minutes). With a 60% moisture content in the vulcanizates, the porosity reappears. The moisture distributes the zinc chloride in the mixture thus improving the physico-mechanical properties of the vulcanizate. This assumption was confirmed experimentally. Another explanation for the moisture effect is the

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82724

S/138/59/000/012/004/006

The Non-Sulfur Vulcanization of Synthetic Rubbers. Communication 2: The  
Vulcanization of Butadiene-Nitrile Rubbers Using Certain Metal Chlorides

interaction of the moisture with the zinc chloride forming active structuralizing compounds. An increase in the quantity of  $ZnCl_2$  increases the structuralizing processes. The technological properties of the mixtures drop. At a dosage of 20 weight parts of  $ZnCl_2$  the scorching increases. The effect of temperature and the vulcanization period was also investigated for non-filled and carbon black mixtures with 5 weight parts of  $ZnCl_2$  containing an optimum amount of moisture. The structuralizing processes increase with an increase in the duration and temperature of the vulcanization. The relative elongations continuously decrease in all cases and the moduli increase. It was also found that with an increase in the nitrile group content the strength, hardness, oil- and gasoline resistance of the rubbers increase and the elasticity and the frost-resistance decrease in the case of zinc-chloride vulcanizates. (Fig. 3-6, Table 3). A comparison is drawn between the mechanism of the structuralizing processes in the presence of  $ZnCl_2$  and thermovulcanization. The properties of the zinc chloride vulcanizates of carbon black mixtures based on SKN-rubber are given in Table 1. Other metal chlorides were also investigated, such as  $AlCl_3$ ,  $FeCl_3$ ,  $SnCl_2$ ,  $CaCl_2$ ,  $BaCl_2$ ,  $MgCl_2$  as to their effect on the

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82724

S/38/59/000/012/004/006

The Non-Sulfur Vulcanization of Synthetic Rubbers. Communication 2: The Vulcanization of Butadiene-Nitrile Rubbers Using Certain Metal Chlorides

vulcanization process. Of these compounds  $AlCl_3$ ,  $FeCl_3$  and  $SnCl_2$  have a vulcanizing effect on the SKN-26 mixtures. The properties of the rubber mixtures vulcanized with these three compounds are listed in Table 2. According to the main indices these vulcanizates are not inferior to sulfur vulcanizates. The conclusion is drawn that the introduction of  $ZnCl_2$  into the mixture increases the rate of the structuralizing process significantly and increases some of the physico-mechanical properties of the vulcanizates. Some of the differences of the moduli were also noted. The change in the hardness of the zinc chloride vulcanizates is a linear function of the temperature, just as in the case of the sulfur vulcanizates (Fig. 7). Some of the other advantages of the  $ZnCl_2$  SKN-based rubbers are their wear-resistance and destruction resistance under repeated deformations (bending, compression). They are inferior to sulfur vulcanizates in their elasticity and rupture-resistance. They are equal in their aging resistance. The  $ZnCl_2$  mixtures have a greater tendency to premature vulcanization. It was also found that by using  $ZnCl_2$  the vulcanization of non-filled mixtures based on SKN rubber can be carried out. The authors conclude: 1) that

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82724

S/138/59/000/012/004/006

The Non-Sulfur Vulcanization of Synthetic Rubbers. Communication 2: The Vulcanization of Butadiene-Nitrile Rubbers Using Certain Metal Chlorides

vulcanization of non-filled and carbon black butadiene-nitrile rubbers is possible using metal chlorides:  $ZnCl_2$ ,  $FeCl_3$ ,  $SnCl_4$ . 2) that water has an activating effect on the vulcanization process of SKN mixtures using  $ZnCl_2$ . 3) that the temperature and period of vulcanization have a definite effect on the vulcanizate properties. 4) that the zinc chloride vulcanizates have several advantages and disadvantages compared to sulfur vulcanizates: a higher wear-resistance, greater durability under repeated deformations, less elasticity and rupture-resistance. There are 3 tables, 6 graphs and 2 Soviet references.

ASSOCIATION: Yaroslavskiy tekhnologicheskii institut i Yaroslavskiy shinny zavod (Yaroslavl' Technology Institute and Yaroslavl' Tire Plant)

Card 4/4

ZAKHAROV, N.D.; MAKAROVA, L.V.

Effect of some organic compounds on the process of vulcanization of  
nairit. Kauch.i rez. 19 no.6:23-26 Je '60. (MIRA 13:6)

1. Yaroslavskiy tekhnologicheskii institut.  
(Rubber, Synthetic) (Vulcanization)

ZAKHAROV, N.D.; SHIRYAYEV, B.A.

Nonsulfur vulcanization of some synthetic rubbers. Part 1.  
Thermovulcanization of butyl-styrene rubbers. Kauch. i rez.  
17 no.12:11-15 D '58. (MIRA 12:1)

1. Yaroslavskiy tekhnologicheskij institut i shinnyy zavod.  
(Rubber, Synthetic) (Vulcanization)



MAKAROVA, L.V.; SHVARTS, A.G.; ZAKHAROV, N.D.; PRIECHETS, A.M.

Determination of the cohesive energy density of some synthetic rubbers with functional groups. Vysokom. sozd. 7 no.6:1056-1059 (MIRA 18:9) Je '65.

1. Yaroslavskiy tekhnologicheskiy institut i Nauchno-issledovatel'skiy institut shinnoy promyshlennosti.

APPROVED FOR RELEASE: 03/15/2001

ABSTRACT: AP50264 11

SOURCE: *RUSS. Khimiya i khimicheskaya tekhnologiya*, v. 8, no. 4, 1968, 663-667

TOPIC TAGS: rubber, barium compound, vulcanization, methyl methacrylate, butadiene

ABSTRACT: The article deals with the vulcanization of filled mixtures based on the

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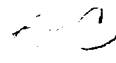
52 2 14 132 025 1

100-468

EXPERIMENTAL REPORT

use of  $Ba(OH)_2 \cdot 8H_2O$  as the vulcanizing agent were studied. It was confirmed that the

CONFIDENTIAL

  
Card 2/2



MAKAROVA, L.V.; ZAKHAROV, N.D.; AGAFONOVA, K.I.

Effect of the molecular weight of epoxy resins on the vulcanization  
of chloroprene rubber. Kauch. i rez. 24 no.5:6-10 My '65.  
(MIRA 18:9)

1. Yaroslavskiy tekhnologicheskii Institut.

YEMEL'YANOV, V.I.; ZAKHAROV, N.F., dots., otv. red.; KOVIEV, A.V.,  
red.

[Technical and economic calculations in technological  
processes; methodology and exercises] Tekhniko-ekonomicheskie  
raschety v tekhnologicheskikh protsessakh; metodika i up-  
razhneniia. Rostov-na-Donu, Izd-vo Rostovskogo univ., 1961.  
223 p. (MIRA 18:5)

ANTONOV, Konstantin Konstantinovich; ZAKHAROV, H.G., kandidat tekhnicheskikh nauk, redaktor; TARAYEVA, Ye.K., redaktor izdatel'stva; GUSNEVA, S.S., tekhnicheskii redaktor

[Analytical method in the planning and standardisation of precast concrete elements; bent elements] Analiticheskii metod v ekonomike proektirovani i unifikatsii sbornnykh zhelezobetonnykh konstruktsii; isgibaemye elementy. Moskva, Gos. izd-vo lit-ry po stroit. i arkhit., 1956. 30 p. (MLHA 10:6)

(Precast concrete construction)

ZAKHAROV, N. G.

ca

15

The application of bitumen emulsion in irrigation projects. N. G. Zakharov. *Chemicalion Socialistie Agr.* (U.S.S.R.) 1938, No. 10, 91-3. - An emulsion of bitumen (of bitumen to 15 of H<sub>2</sub>O) was sprayed on the dry canal of the irrigation system at the rate of 100 g. of dry matter per sq. m. The membrane formed decreased the infiltration of water and thus prevented waste. J. S. Joffe

ASB 334 METALLURGICAL LITERATURE CLASSIFICATION