

S/138/63/000/001/002/003
A051/A126

AUTHOR: Blokh, G. A.

TITLE: Results of the third All-Union conference on automation and mechanization of major rubber production processes

PERIODICAL: Kauchuk i resina, no. 1, 1963, 59 - 60

TEXT: The conference took place in Dnepropetrovsk from October 2 - 6, 1962. It was organized by the Central and Dnepropetrovsk Regional Administration of the All-Union Chemical Association BXO (VKhO) im. Mendeleev; the Dnepropetrovsk Chemico-Technical Institute, im. P. E. Dzerzhinskiy and the Dnepropetrovsk Tire Plant. 62 organizations were represented including 9 tire plants, 12 commercial rubber institutes, 5 rubber footwear plants, 3 recovery plants, 5 cable and 2 mechanical plants, 4 synthetic leather plants, 9 designing organizations, 7 scientific research institutes, 3 higher schools of learning, representatives of the State Committee of the USSR Council of Ministers on Chemistry, the State Economy Council, State Plan of the RSFSR, USSR, Ukr.sovnarkhoz, etc. 24 papers were read on major problems of mechanization and automation of the tire industry. Some of

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the papers were: 1) B.I. Andrashnikov (top specialist on automation at the Resino-proyekt) - "Principle and Constructive Stations for Mechanization and Automation of the Major Technical Processes at the Volga Tire Plant". 2) A. P. Pukhov, НИИШП (NIISHP) - on the processing principles in vulcanizing of casings using computing machines. 3) Employees of the Dnepropetrovsk Tire Plant: a) T. A. Mayborod - on programming and automation control of raw materials, semi-finished products and finished product handling; b) V. A. Vasilenko - on the introduction of conveyor systems for the production of rubber mixes; c) Kh. N. Borodyshina - on the technology features of rubber mixtures production at the DTP; d) L. L. Osokin - on cord processing using a Z-type calander line; e) N. T. Yarovaya - on developing vulcanizing conditions for automobile and agricultural casings in formators-vulcanizers. 4) V. E. Vaysfel'd ("Krasnyy Bogatyr" Plant) - on the organization of mechanized conveyor lines for the production of rubber footwear. 5) M. A. Rogov (Mogilev Recovery Plant) - submitted data on mechanization of recovery production. 6) Representatives of the Kursk Commercial Rubber Institute and the Kalin in Synthetic Leather Combine - on mechanizing the production of commercial rubber articles and automation and mechanization of the major production processes of synthetic leather. 7) G. A. Blokh (Dnepropetrovsk Chemico-Technical Institute) - on the application of ionizing radiation in the rubber industry; the use of

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isotopes in the construction of monitoring and measuring units. 8) N. G. Bekin (Yaroslavl' Institute of Technology) - on calandering processes investigation and an instrument for the continuous checking of rubber mix pressure within the zone of deformation. 9) M. A. Polyak, same institute-on the cooperation of the Yaroslavl' Institute of Technology and the Yaroslavl' Tire Plant for modernizing the PC-2 (RS-2) rubber mixer and strengthening the production process of rubber mixes. 10) M. K. Mil'vidskiy (NIIRP) - on the investigation of thrust forces, occurring in the forming, vulcanizing and cooling of formed articles from hard rubber mixes, and on force calculations of lock press-forms. 11) B. K. Gor'kayev (Leningrad Tire Plant) - on mechanizing transportation and storage of tires in the finished products warehouse. 12) L. A. Knyaz'kov (Yaroslavl' branch of the Rezinoprojekt) - on designing a unit for cutting sprayed apparatus. 13) S. N. Rozhdestvenskiy (Yaroslavl' branch of the Rezinoprojekt) - on a unit for producing a non-formed foam-rubber plate. 14) I. Z. Lisogurskiy (Yaroslavl' Tire Plant) - on the stepping up of tire production and introduction of new tire models. 15) I. Ya. Dashevskiy (Dnepropetrovsk Tire Plant) - on special work features of equipment at the plant and the necessity of spreading the experiences of the Dnepropetrovsk Tire Plant to other plants. The conference called upon the State Chemical

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Committee to organize a summary of Dnepropetrovsk Tire Plant technology results, pertaining particularly to automatic systems. Shortcomings in planning, research and information service centers were emphasized. A special activity group at the Rezinoprojekt was asked to be formed, which would submit yearly plans and results of experiments and designing on mechanization and automation. The need for mass production of the P (R) and PC (RS) tires was emphasized. ✓

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BLOKH, G.A.

The prevention of rubber-mix scorching by using molecular sieves.

Report submitted for the 4th Scientific Research Conference on the Chemistry and technology of synthetic and natural rubber.yaroslavl, 1962

S/081/62/000/024/038/052
B106/B186

AUTHORS: Neymark, I. Ye., Chuyko, A. A., Blokh, G. A., Gendler, T. R.,
Chugay, A. D.

TITLE: Rubbers reinforced with organosilica

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 24 (II), 1962, 929,
abstract 24P815 (Izv. vyssh. uchebn. zavedeniy. Tekhnol.
legk. prom-sti, no. 2, 1962, 60-67)

TEXT: This is a study of how organo-silicas whose surfaces contain chemically bound organic radicals (ether, propyl, allyl, vinyl) affect the physico-mechanical properties of (KH-26 (SKN-26), (KH-40 (SKN-40), and (KE-30 (SKS-30) rubbers. Powdered silica gel containing organic radicals on the surface affects the physico-mechanical properties (tensile strength, moduli, etc. increase) of rubber considerably. The authors assume that the chemism of rubber solidification by organosilica is characterized by a reaction between the organosilica of organic radicals and the rubber molecules yielding complex vulcanization structures. The filler is chemically bound to the polymer either directly or via sulfide bonds.

[Abstracter's note: Complete translation.]

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S/081/63/000/004/049/051
B156/B180

AUTHORS: Blokh, G. A., Zhurko, V. A., Zayonchkovskiy, A. D., Kiriyyenko, N. V., Karpov, V. I., Breger, A. Kh., Tsipenyuk, E. V., Vyazankins, M. A., Bronshteyn, F. V., Bernshteyn, M. Kh., Yabko, Ya. M.

TITLE: The radiation vulcanization of rubbers and reclaimed rubbers together with plastics

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 4, 1963, 648 - 649, abstract 4T349 (Kozhevno-obuvn. prom-st', no. 5, 1962, 17 - 20)

TEXT: The effects of exposure to radiation were studied on the physical, mechanical and chemical properties of the following combined systems of polymers: rubber ККС-30 (SKS-30), ККБ (SKB), НК(НК) - thermoplastics (low and high) molecular-weight polyethylene, and polystyrene); ratios of thermoplastics to rubber of 0 - 100 % were used. The radiation dose (Co^{60}) was 1 - 100 Mrad. The plasticity, hardness, wear-resistance, strength, percentage, elongation, permanent set etc. were determined, and
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The radiation vulcanization of ...

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plotted versus temperature in the 40 - 200°C range. The effect of irradiation on mixtures of rubbers with polyethylene or polystyrene is that cross-linking occurs between the two polymers, to form substances with valuable physical and mechanical properties; the plasticity is greatly reduced, while the strength, wear-resistance and heat-resistance are improved. Abstracter's note: Complete translation.

Card 2/2

VAS'KOVSKAYA, M. A.; BLOKH, G. A.

Vulcanizing action of di-2-benzothiazolyl disulfide (altax)
in rubber compounds filled with chalk, talc, and kaolin.
Izv. vys. ucheb. zav.; khim. i khim. tekh. 5 no.5:815-820
'62. (MIRA 16:1)

1. Dnepropetrovskiy khimiko-tekhnologicheskii institut imeni
F. E. Dzerzhinskogo, kafedra tekhnologii reziny.

(Vulcanization) (Benzothiazole)

BLOKH, G.A.; SHILO, R.Ye.; TSIPENYUK, E.V.; YEROSHKINA, Ye.A.

Effect of benzoic acid, phthalic and maleic anhydrides on the isotope exchange of sulfur atoms. Zhur.ob.khim. 32 no.9:2800-2803 S '62. (MIRA 15:9)

1. Dnepropetrovskiy khimiko-tekhnologicheskii institut.
(Sulfur-Isotopes) (Benzoic acid) (Phthalic anhydride)
(Maleic anhydride)

MELAMED, Ch. L.; BLOKH, G.A. [Blok, H.A.], doktor khim. nauk

Accelerators for the cold vulcanization of rubber. Khim. prom.
[Ukr.] no. 130-33 Ja-Mr'63 (MIRA 17:7)

1. Dnepropetrovskiy khimiko-tekhnologicheskii institut imeni
Dzerzhinskogo.

S/138/63/000/002/003/007
A051/A126AUTHORS: Blokh, G.A., Drozdova, A.S.

TITLE: The effect of sulfur, contained in Omsk furnace carbon black, on the vulcanization kinetics of butadiene-styrene rubber, CKC -30 APM (SKS-30 ARM)

PERIODICAL: Kauchuk i rezina, no. 2, 1963, 15 - 17

TEXT: Soviet active furnace carbon black, ПМ-70 (PM-70), produced at the Omsk Carbon Black Plant from liquid raw material, qualifies as a XAΦ (KhAF) carbon black. It has, however, a high sulfur content (between 0.66 and 1.1%). The effect of the sulfur on the vulcanization kinetics of SKS-30 ARM and on the physico-mechanical properties of its vulcanizates was investigated. The mix had the following composition (in w.p.): SKS-30ARM - 100, rubrax - 5, stearin - 2, zinc oxide - 5, altax - 0.6, ДФГ (DFG) - 0.76, sulfur - 2, carbon black - 50. Data obtained showed that with an increase in the free sulfur content of the carbon black, the tensile properties of the vulcanizates increased and the vulcanization optimum is reached sooner. The vulcanizates containing Omsk carbon

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The effect of sulfur, contained in Omsk

black showed a tensility higher by 25 - 37% as compared to the vulcanizates of the control batch. A reduction in the sulfur dosage by 25 - 40% leads to a drop in the rate of vulcanization since the bound sulfur requires time to dissociate itself from the carbon black structure and to form sulfur fragments which, in turn, actively participate in the chemical reactions of vulcanization. The al-tax and DFG contents in the Omsk carbon black may be reduced by no more than 35 - 40% without sharply reducing the rate of vulcanization and the physico-mechanical properties of the vulcanizates. Tests with radioactive sulfur showed that the sulfur contained in the Omsk carbon black participates in the reaction of sulfur atom substitution, is mobile, and takes part in the vulcanization reaction. Transverse bond formation due to the presence of sulfur proved further that the latter plays an active part in the structurizing and vulcanization reactions. The sulfur bound to the carbon black may possibly react with the molecular chains of the rubber forming a single space structure. Therefore, the use of the PM-70 requires additional correction of the vulcanizing systems in the compositions of the rubber mixes. There are 4 tables and 3 figures.

ASSOCIATION: Dnepropetrovskiy khimiko-tekhnologicheskii institut i Omskiy sa-zhevyy zavod (Dnepropetrovsk Institute of Chemical Technology and the Omsk Carbon Black Plant)

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BOCHAROV, V.F., doktor khim. nauk; BLOKH, G.A. [Blokh, H.A.], doktor khim. nauk.

Effect of the type of fixative on the properties of gels and vulcanizates of polychloroprene latex L-7. Khim. prom. [Ukr.] no.2:25-28. Ap-Ja '63. (MIRA 16:8)

1. Dnepropetrovskiy khimiko-tehnologicheskii institut.

BOCHAROV, V.F., inzh.; BLOKH, G.A., doktor khimicheskikh nauk, prof.

Vulcanizing effect of resorcin and pyrocatechin in the ion
deposition of the neutralized L-7 latex. Izv. vys. ucheb. zav.;
tekh. leg. prom. no.3:17-22 '63. (MIRA 16:7)

1. Dnepropetrovskiy khimiko-tehnologicheskii institut. Rekomendovana kafedroy tekhnologii reziny.
(Rubber, Synthetic) (Vulcanization)

BLOKH, G.A., doktor khimich. nauk, prof.; NEYMARK, I.Ye., doktor khimich. nauk, prof.; BORODUSHKINA, Kh.N., inzh.; BOGUSLAVSKIY, D.B., inzh.; SHEVCHENKO, Yu.G., inzh.

Molecular sieves and problems of rubber vulcanization. Izv. vys. ucheb. zav.; tekh. leg. prom. no.4:46-53 '63. (MIRA 16:10)

1. Dnepropetrovskiy khimiko-tehnologicheskoy institut (for Blokh).
2. Institut fizicheskoy khimii AN UkrSSR (for Neymark.)
3. Dnepropetrovskiy shiny zavod (for Borodushkina, Boguslavskiy, Shevchenko). Rekomendovana kafedroy tekhnologii reziny Dnepropetrovskogo khimiko-tehnologicheskogo instituta.

L 12685-63 EWP(j)/EWT(m)/BDS AFPTC/ASD Pc-4 RM
ACCESSION NR: AP3001595 S/0138/63/000/005/0024/0027

AUTHOR: Vas'kovskaya, M. A.; Blokh, G. A.; Gordon, A. B.

TITLE: Acceleration of vulcanization by tetramethylthiurammonosulfide

SOURCE: Kauchuk i rezina, no. 5, 1963, 24-27

TOPIC TAGS: vulcanization, acceleration of vulcanization, thiuram, thermal dissociation, free radical

ABSTRACT: The objective of the investigation was to study the kinetics of rubber vulcanization in the presence of tetramethylthiurammonosulfide (Unads) in comparison with such popular accelerators as Tuads, Altax, Captax, diphenylguanidine (DPG), Zimate, and Santocure. The vulcanization of natural rubber was conducted with 0.2-1.5% of Unads at 140C, and that of butyl rubber with 1.3%, the percentage of the other accelerators being 0.7% for the former and 1.3 for the latter. A study of the modulus taken at 10- to 20-minute intervals showed that in the presence of Unads the space lattice of the natural rubber vulcanizate was formed during the first 10 minutes, with the optimal concen-

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ACCESSION NR: AP3001595

7
tration for Unads being 0.8% by weight, with little destruction during the following 50 minutes, while subsequent heating caused a drastic lowering of the modulus and resistance to tear. Vulcanization with Zimate gave a maximum modulus within 5-10 minutes, Santocure within 30 minutes, and Captax within 40 minutes, subsequent heating causing destruction of the vulcanization lattice. The acceleration of vulcanization by Unads is linked by the authors with the potential formation of free radicals. The vulcanization tests with Unads were conducted by V. Antonenko, L. Drozd, and L. Kachanova. Orig. art. has: 3 formulas and 3 charts.

ASSOCIATION: Dnepropetrovskiy khimico-tekhnologicheskij institut (Dneproptrovsk Chemical-Technical Institute)

SUBMITTED: 00

DATE ACQ: 06Jul63

ENCL: 00

SUB CODE: 00

NO REF SOV: 006

OTHER: 003

Card 2/2

Blokh, G. A.

AID Nr. 980-17 31 May

EFFECT OF IONIZING RADIATION ON THE STRUCTURAL CHANGES IN RUBBER-PLASTIC SYSTEMS (USSR)

Blokh, G. A., V. A. Zhurko, M. A. Vyazankina, M. A. Vas'kovskaya, A. P. Meleshévich, F. V. Bronshteyn, and E. V. Tsipenyuk. Vysokomolekulyarnyye soyedineniya, v. 5, no. 4, Apr 1963, 605-613.

S/190/63/005/004/019/020

Structural changes produced by ionizing radiation in doses of 1 to 100 Mr in rubber-plastic systems have been studied at the Dnepropetrovsk Institute of Chemical Technology. The changes in properties were evaluated from thermomechanical curves in the range from about 60 to 220°C and from swelling data. The experiments were conducted with systems of sodium butadiene (CKB), butadiene-styrene (CKC-30), or natural rubber and low- or high-pressure polyethylene or polystyrene (rubber:plastic ratios, 80:20, 50:50, and 20:80) irradiated in air without heating. The thermomechanical curves of individual nonirradiated and irradiated systems differ sharply from one another.

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AID Nr. 980-17 31 May

EFFECT OF IONIZING RADIATION [Cont'd]

8/190/63/005/004/019/020

At a given temperature and radiation dose, network structure formation, indicated by a loss of deformability and by the absence of viscous flow, was shown to be induced by irradiation. The density of cross links in individual systems, determined by Flory's swelling method, was shown to increase with an increase of the dose and to depend on the nature of the rubber and the rubber-to-plastic ratio. In polymers containing phenyl groups radiation-induced structural changes proceeded slower and required higher radiation doses. Analysis of the results of the study indicates that ionizing radiation apparently causes a cross-linking of the rubber and the plastic and is accompanied by a change in the physical and mechanical properties of the system: a sharp decrease in plasticity, a decrease in swelling, and increases in hardness, tensile strength, and wear resistance. It is concluded that irradiation of combinations of rubbers and plastics in predetermined ratios makes possible the production of materials with the desired improved properties.

[BAO]

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BLOKH, G. A.; ZHURKO, V. A.; TSIPENYUK, E. V.; BELOUSOVA, E. A.;
MELESHEVICH, A. P.; VAS'KOVSKAYA, M. A.

Radiation vulcanization of rubber compounds for soles. Kozh.
obuv. prom. 5 no. 12:18-22 D '63. (MIRA 17:5)

ACCESSION NR: AP4025265

S/0153/63/006/006/1025/1030

AUTHOR: Melamed, Ch. L.; Blokh, G. A.; Mashinson, L. Z.

TITLE: Intensification of vulcanizing processes with the aid of the triple accelerator system Tsimat-DFG-Santocure

SOURCE: IVUZ. Khimiya i khimicheskaya tekhnologiya, v. 6, no. 6, 1963, 1025-1030

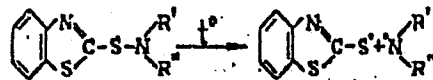
TOPIC TAGS: vulcanization, accelerator, Tsimat, diphenylguanidine, sulfenamide, Santocure, Tsimat diphenylguanidine Santocure system, methyl ziram, rubber, acceleration mechanism, vulcanization mechanism, free radical formation, vulcanization process, tire manufacture

ABSTRACT: Vulcanization kinetics were studied at different temperatures and times using double and triple accelerator systems including Tsimat (zinc dimethyl-dithiocarbamate) [Abstractor's note: Tsimat is equivalent to domestic product known as methyl ziram.] The effectiveness of the double Tsimat-DFG (diphenyl-guanidine) system and the triple Tsimat-DFG-Santocure for vulcanizing carbon black filled wear-resistant rubber mixtures was studied. Introduction of the three-component accelerator system reduces the temperature (from 143 to 120 C) and

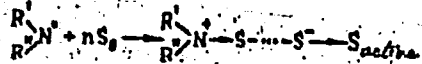
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ACCESSION NR: AP4025265

time (from 50 to 30-40 minutes) requirements for vulcanization. The effectiveness of the components of the system on acceleration of vulcanization is shown in the figure. Lowering the temperature by 10 C doubles the working time of the triple acceleration system. The mechanical properties of the rubbers obtained with the three-component system at the reduced vulcanization temperature of 120 C are equivalent to those of control samples. It is suggested that this low temperature vulcanization be applied to the tire industry as well as to the preparation of other rubber articles. The action of the accelerator system is depicted as follows: decomposition of the sulfenamide (Santocure) to radicals:



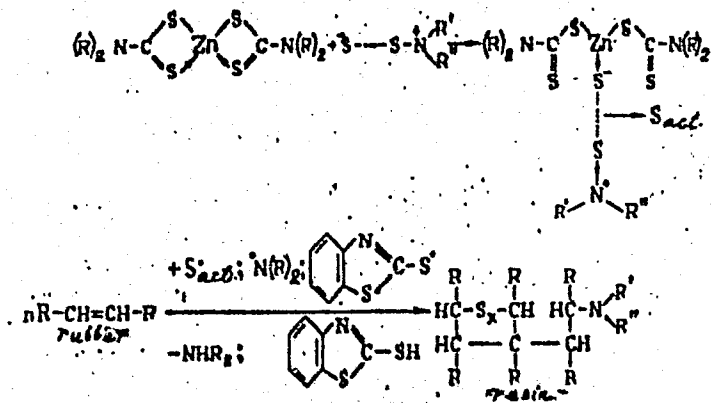
activation of the sulfur by the DFG and the amine radicals formed by the sulfenamide decomposition



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ACCESSION NR: AP4025265

and the formation of the polysulfide complex of Tsimat, which also gives off active sulfur fragments which crosslink the rubber:



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ACCESSION NR: AP4025265

Orig. art. has: 3 equations, 7 tables and 1 figure. .

ASSOCIATION: Dnepropetrovskiy khimiko tekhnologicheskii institut im. F. E. Dzerzhinskogo, Kafedra tekhnologii reziny* (Dnepropetrovsk Chemical Engineering Institute, Department of Resin Technology)

SUBMITTED: 09Nov62

DATE ACQ: 10Apr64

ENCL: 01

SUB CODE: MT, GC

NO REF SOV: 006

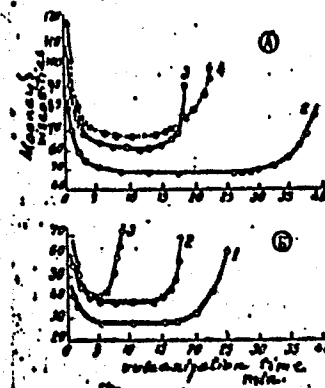
OTHER: 000

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ACCESSION NR: AP4025265

ENCLOSURE: 01

Fig. Effect of type of accelerator on tendency of mixture to undergo vulcanization at 110 C (A) and 120 C (B). Accelerators: 1--Santocure - DFG (control); 2--Tsimat - DFG - Santocure; 3--Tsimat - DFG; 4--Tsimat.



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BLOKH, G.A.; GROYSMAN, M.P.; CHERVINSKIY, Yu.Ye.; ZHURKO, V.A.; BULKIN, I.N.

Rubber expansion joints. Gaz. prom. 8 no.8:31-34 '63. (MIRA 17:11)

BLOKH, G.A.

Results of the Third All-Union Conference on the Automation and
Mechanization of the Basic Processes in Rubber Manufacture. Kauch. i
rez. '22 no.1:59-60 Ja '63. (MIRA 16:6)
(Rubber industry) (Automation)

VAS'KOVSKAYA, M.A.; BLOKH, G.A.; GORDON, A.B.

Accelerating vulcanization by means of tetramethylthiuram
monosulfide. Kauch. i rez. 22 no.5:24-27 My '63. (MIRA 16:7)

1. Dnepropetrovskiy khimiko-tekhnologicheskii institut.
(Vulcanization) (Thiuram sulfide)

BLOKH, Grigoriy Abramovich, prof.; ZAKHARCHENKO, P.I., red.
ZITSER, A.I., red.

[Organic accelerators of rubber vulcanization] Organi-
cheskie uskoriteli vulkanizatsii kauchukov. Moskva,
Khimia, 1964. 540 p. (MIRA 18:1)

1. Dnepropetrovskiy khimiko-tekhnologicheskiy institut
im. F.E.Dzerzhinskogo (for Blokh).

SHCHICHKO, Z.V. [Shchychko, Z.V.]; SIMAKOVA, E.P. [Symakova, E.P.];
BOGUS'AVSKIY, D.B. [Bohuslavs'kyi, D.B.]; BLOKH, G.A. [Blok, G.A.];
H.A., doktor khim. nauk; PIVOVAROVA, Yu.V. [Pyvovarova, IU.V.];
BORODUSHKINA, Kh.N.

Increasing the strength of the bonds between the elements of
automobile tires. Khim. prom. no.4:21-22 O-D '64.

(MIRA 18:3)

ACCESSION NR: AP4017159

s/0138/64/000/002/0001/0005

AUTHORS: Borodushkina, Kh. N.; Blokh, G. A.; Boguslavskiy, D. B.; Gendler, T. R.; Neymark, I. Ye.

TITLE: Vulcanization of rubber compounds in the presence of filled zeolites

SOURCE: Kauchuk i rezina, no. 2, 1964, 1-5

TOPIC TAGS: rubber, rubber compound, vulcanization, scorching, accelerator, Altax, Santocure, phenylguanidine, zeolite, filled zeolite, ammonia, methylamine, dimethylamine, ethanolamine, adsorption, kinetics of desorption

ABSTRACT: The vulcanization of protective and brake rubber compounds from natural and butadiene-styrene rubbers of the SKMS-30ARKM brands was conducted in the presence of synthetic zeolites of the NaKh type with pores 10 Å in diameter, filled with ammonia, methylamine, dimethylamine, monoethanolamine, and diethanolamine. These filled zeolites were used in the capacity of secondary accelerators of vulcanization (instead of Altax and diphenylguanidine) in combination with the basic accelerator Santocure. It was found that an increase of ammonia content in protective and brake rubber compounds to 0.25 and 0.40% (by weight), respectively,

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permitted the production of materials with a higher degree of vulcanization, while still preserving the resistance of the compounds to scorching. The use of ammonia-filled zeolites also resulted in a substantial saving of time, achieving within 30 minutes a degree of vulcanization for protective rubber equal to that attained by Altax in 50 minutes. Methylamine and dimethylamine exert a similar effect on the vulcanization of rubber compounds when used in association with zeolites. While the ethanolamines are known to act as accelerators of vulcanization, their direct application causes (within 20-26 minutes at 110C) some scorching of the compounds during the working operation. However, when adsorbed on zeolites, monoethanolamine and diethanolamine impart to brake-rubber compounds a state of plastic flow which lasts for 37-39 minutes. It was found that the physical and mechanical properties of these vulcanized rubbers were practically identical with those of the vulcanizates produced with the aid of Altax and diphenylguanidine. The kinetics of desorption of amines from zeolites at various temperatures was studied, and it was observed that a 10-minute heating at 140C caused the desorption of only 40% monoethanolamine and 18% diethanolamine. The capacity of zeolites to retain the amines at elevated temperatures lessens the danger of scorching in the vulcanization process. Orig. art. has: 3 tables and 2 charts.

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ACCESSION NR: AP4017159

ASSOCIATION: Dnepropetrovskiy khimiko-tekhnologicheskoy institut,
Dnepropetrovskiy shinnyy zavod i institut fizicheskoy khimii AN SSSR
(Dnepropetrovsk Chemical and Technical Institute, Dnepropetrovsk Tire Plant
and Institute of Physical Chemistry, AN SSSR)

SUBMITTED: 00

DATE ACQ: 23Mar64

ENCL: 00

SUB CODE: CH

NO REF SOV: 007

OTHER: 001

Card 3/3

BOCHAROV, V.F.; BLOKH, G.A. [Blokh, H.A.]

Interaction of mixed electrolytes (fixatives) with synthetic latexes during ionic deposition. Dop. AN URSR no.2:235-237 '64.

(MIRA 17:5)

1. Dnepropetrovskiy khimiko-tekhnologicheskii institut. Predstavleno akademikom AN UkrSSR F.D.Ovcharenko.

BORODUSHKINA, Kh.N. [Borodushkina, Kh.M.]; BLOKH, G.A. [Blok, H.A.];
BOGUSLAVSKIY, D.B. [Bohuslav'kyi, D.B.]; NEYMARK, I.Ye.
[Neimark, I.IE.]; GENDLER, T.R. [Hendler, T.R.]

Molecular sieves (zeolites) as rubber curing accelerators.
Dop. AN URSR no.8:1084-1087 '64. (MIRA 17:8)

1. Dnepropetrovskiy khimiko-tekhnologicheskii institut;
Dnepropetrovskiy shinnyy zavod i Institut fizicheskoy khimii
AN UkrSSR. Predstavleno akademikom AN UkrSSR F.D. Ovcharenko.

L 15253-65 EPP(c)/EPR/EWP(j)/EWP(k)/EWP(m)/EWP(n)/T/EWP(v)/EWP(t) PG-4/
IPR-4 Ps-4
174045699

... Blok, ...
... parts in metal ...

SOURCE: Kauchuk i razina, no. 9, 1964, 22-4

TOPIC TAGS: rubber metal part, rubber to metal bonding, bonding strength, natural rubber, nitrile rubber, butadiene styrene rubber, chloroprene rubber, vulcanization accelerator

ABSTRACT: The effect of organic vulcanization accelerators on rubber-to-metal bonding strength has been studied for natural, nitrile, butadiene-styrene (SBS-10), and chloroprene rubbers.

The results of the study given in the paper show that natural rubber exhibit satisfactory bonding strength (45.7-57.0 kg/cm²) with the exception of those made with the ultra-accelerator triethylamine diethyldithiocarbamate, because in this case the vulcanizing sulfur reacts faster with rubber than with brass. The lowest bonding strength

Card 1/2

L 15253-65

ACCESSION NR: AP4045699

is exhibited by SRS-30 rubbers. In the case of...
... mono- and disulfides have the...
strength (53.5 kg/cm²). Most accelerators do not affect the bonding
strength of chloroprene rubber; sulfur increases the bonding strength
of Nairit L to 66.6 kg/cm². It is concluded that the...
bonding strength is highly dependent on the type of accelerator used.
Experimental rubber-metal shock absorber parts based on natural rubber
have been successfully tested at the Krivoy...
... plates.

ASSOCIATION: Dnepropetrovskiy khimiko-tekhnologicheskiy institut
(Dnepropetrovsk Institute of Chemical Technology)

SUBMITTED: 00

ENCL: 00

SUB CODE: MT/MM

NO REF SOV: 001

OTHER: 002

Card 2/2

BORODUSHKINA, Kh.N.; BLOKH, G.A.; BOGUS'AVSKIY, D.B.; GENDLER, T.R.;
NEYMARK, I.Ye.; PIONTKOVSKAYA, M.A.

Synthetic zeolites as carriers of rubber vulcanization accelerators.
Kozh. obuv. prom. 6 no.6:14-19 Je '64. (MIRA 17:9)

WRITE BELOW THIS LINE

ACCESSION NR: AP4041684

8/0153/64/007/002/0307/0312

AUTHOR: Kolobenin, V. N.; Utlenko, Ye. V.; Demidenko, I. A.; Blokh, G. A.

TITLE: The use of carbon black in cable resins.

SOURCE: Izvuz. Khimiya i khimicheskaya tekhnologiya, v. 7, no. 2, 1964, 307-312.

TOPIC TAGS: carbon black, cable resin, filler, thermal aging resistance, channel black, lamp black, furnace black, thermal black, thermal oxidation, tensile strength, elongation, physical mechanical property, insulating type resin, electrical insulating property, volatility, stability

ABSTRACT: A study was made of the effect of different types of carbon blacks and their combinations on the thermal aging resistance of hose and cable resins. Lamp, channel, furnace and thermal carbon blacks and combinations of 60 parts lamp, furnace or thermal black with 40 parts channel black were tested in a recipe ShVP-50 (in %: NK-35.0; SKHM-50R-15; S-1.0; Captax- 0.35; ZnO-2.5; furnace black-21.95; channel black-14.70; stearin-2.5; Neozone "D"-0.5, rosin-1.5; paraffin-5.0). Vulcanization was at 143C; resistance to thermal oxidation at 85, 100 and 110C was

Card

1/3

ACCESSION NR: AP4041684

tested. The resins filled with channel black were the least stable to prolonged aging at either temperature. The combination of 2 different blacks (furnace, lamp or thermal) improved the resistance of the resins to thermal aging at 85 and 100C as indicated by higher tensile strength and elongation; these values were much lower when the temperature was increased to 110C. There seemed to be no correlation between the amount of volatiles at the different temperatures and the mechanical properties of the resin. Examination of the effect of a combination of channel black, mercaptobenzthiazole and thiuram on the physical mechanical properties of insulating type resins showed that addition of 5-10 wt. parts of channel black and 3 wt. parts of Captax increased the strength of the vulcanizates (from 47-67 kgs/cm²) without changing their electrical insulating properties. Orig. art. has: 1 figure and 4 tables.

ASSOCIATION: Dnepropetrovskiy khimiko-tehnologicheskiy institut im. F. E. Dzerzhinskogo Kafedra tekhnologii reziny* (Dnepropetrovsk Uhemical Technological Institute Department of Rubber Technology)

SUBMITTED: 16Mar63

ENCL: 00

Card 2/3

BLOKH, G.A.

Problems of raw materials for the rubber industry. Kauch. i
rez. 23 no. 4:50-51 Ap'64 (MIRA 17:7)

MELAMED, Ch.L.; BLOKH, G.A.; STRYUK, V.I.; MOISEYEV, Ye.P.

Rubber-metal parts in metallurgical equipment. Kauch. i rez. 23
no.9:22-24 S '64. (MIRA 17:11)

1. Dnepropetrovskiy khimiko-tekhnologicheskii institut.

CHERENYUK, I.P.; BLOKH, G.A. [Blokh, H.A.]; MELESHEVICH, A.P., doktor
khim. nauk

Effect of ionizing radiation on the properties of resinous
vulcanisates of isoprene rubber. Khim. prom. [Ukr.] no.3:
6-8 J1-S '64. (MIRA 17:12)

CHUYKO, Ye.A.; BLOKH, G.A.; OVCHARENKO, F.D.; GUDOVICH, N.V.; TSIPENYUK, E.V.

Activation of kaolin with the cation-active substance "alkamon
OS-2." Kozh.-obuv. prom. 6 no.9:13-16 S '64.

(MIRA 17:12)

GANZ, Semen Naumovich; YEMEL'YANOV, Miney Stepanovich; PARKHOMENKO, Vladimir Dmitriyevich; PANASYUK, V.G., doktor tekhn. nauk, prof. retsenzent; BLOKH, G.A., doktor khim. nauk, prof., retsenzent; KOZOPOLYANSKIY, N.S., dots., otv. red.; DEREVIANCHENKO, R.M., red.

[Plastics in the instrument industry] Plastmassy v apparatostroenii. Khar'kov, Izd-vo Khar'kovskogo univ., 1963. 198 p. (MIRA 18:6)

L 2909-66 EWT(m)/EWP(j)
AM5013198

RM
BOOK EXPLOITATION

UR/
678 4.028.044.1/7
B 70

19
B+1

Blokh, Grigoriy Abramovich

Organic accelerators in the vulcanization of rubber (Organicheskiye uskoriteli vulkanizatsii kauchukov) Moscow, Izd-vo "Khimiya", 1964. 540 p. illus., biblio., index. Errata slip inserted. 4600 copies printed.

TOPIC TAGS: organic accelerator, synthetic rubber, rubber chemical, rubber

PURPOSE AND COVERAGE: Presented are physical and chemical data on important accelerators, activators, vulcanization systems, information on the synthesis and structure of accelerators, on the chemical basis of accelerating effects, and on the effect of accelerators on the property of rubber. The book deals briefly with the protection methods of rubber blend from scorching. The book is intended for a broad circle of chemists and technologists who are working in chemical, rubber, cable, light and other industries engaged in synthesis and in the use of accelerators. It can be useful for scientific workers and for students of advanced and secondary schools specializing in rubber manufacturing.

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AM5013198

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Ch. II. All-purpose and speciality rubber vulcanization systems -- 103

Ch. III. The mechanism of the organic accelerator effect in rubber vulcanization -- 236

Ch. IV. The effect of the organic accelerators on the physical and mechanical properties of rubber, latex and ebornite articles -- 356

Ch. V. Activation of the organic accelerators with metal oxides, organic bases and water -- 428

Ch. VI. Interaction of accelerators with rubber extender -- 445

Ch. VII. Protection of rubber blend from searching -- 456

Ch. VIII. Present physical and chemical determination methods of accelerators in rubber blends and vulcanised rubber -- 479

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Trade names of accelerators -- 513

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SUB CODE: MT

NO REF SOV: 999

SUBMITTED: 01Dec64

OTHER: 855

tc
Card 3/3

KOLOBENIN, V.N.; BLOKH, G.A. [Blok, H.A.], doktor khim.nauk; TYUTIN,
V.A.

Effect of anilinephenol-formaldehyde resins on the electric
properties of SKS-30 rubber. Khim.prom.[Ukr.] no.1:14-16
Ja-Mr '65.

(MIRA 18:4)

B-63841-65 EWT(m)/EPP(c)/EWP(j) RM

ACCESSION NR: AP5020516

IR 201145750 (X) 1965/1965

Author: Raninskaya, S. Ye. (Engineer); Blouk, B. I.

Title: Vulcanization of ethylene-propylene rubber

SOURCE: IVVZ. Tekhnologiya legkoy promyshlennosti, no. 4, 1965, 57-62

TOPIC TAGS: vulcanization, ethylene, propylene, peroxide, rubber, acelite

ABSTRACT: Vulcanization of ethylene-propylene rubber (EPR) with a mixture of peroxide (I) or powdered silica gel) with tert-butyl peroxide (II), or tert-butyl perbenzoate (III) in a liquid phase. Direct introduction into the reaction mixture of peroxide (I) is recommended because of their high efficiency to cause crosslinking of the rubber chains.

CaO·Al₂O₃·2.5 SiO₂, lattice size 10⁸ ; A = Na₂O·Al₂O₃·1.5 SiO₂

Card 1/2

L 63841-65

ACCESSION NR: AP5020516

$\text{CaO} \cdot \text{Al}_2\text{O}_3 \cdot 1.2 \text{SiO}_2$, lattice size 5 \AA) were obtained from
 from 1964-1965. It is concluded that calcination
 with CaO results in a product of
 $\text{CaO} \cdot \text{Al}_2\text{O}_3 \cdot 1.2 \text{SiO}_2$ for 15 days with
 CaO and Al_2O_3 and SiO_2 in the
 presence of CaO and Al_2O_3 and SiO_2
 in the presence of CaO and Al_2O_3 and SiO_2
 in the presence of CaO and Al_2O_3 and SiO_2

ASSOCIATE: Inzhenepetrovskiy khimik-tekhn. inst.
 Institute of Chemical Engineering

SUBMITTED: 22Aug64

ENCL: 00

NO REF. COV: 005

OTHER: 006

Card 2/2

L 54820-65 EWP(m)/EWP(j)/EPP(c) Pc-1/Pr-1 RM
ACCESSION NR: AP5013733

UR/0138/65/000/009/0014/0017
678. 763.2+678.762.2-174.515-678.028-678.044

AUTHORS: Blokh, G. A.; Melamed, Ch. I.; Yevchik, V. S.; Beranova, G. A.

24
23
R

TITLE: The effect of OS-2 alkane on polar rubber vulcanization

SOURCE: Kauchuk i rezina, no. 5, 1965, 14-17

TOPIC TAGS: alkane, rubber, rubber mix, rubber property, rubber product, rubber vulcanization, vulcanization, vulcanizate, vulcanized rubber

ABSTRACT: The effect of the OS-2 alkane on rubber vulcanization was studied in the binary system rubber-OS-2 and also in the standard mixture

Cord 1/5

L 54820-65

ACCESSION NR: AP5013733

noted with the further increase. The formation of the cross-link structure in chloroprene mixtures was intensified under the alkali action. The effect of the OS-2 on the polymerization of the mixture is shown in Fig. 1 on the Enclosure. The effect of the OS-2 on the polymerization of the mixture is shown in Fig. 1 on the Enclosure. The effect of the OS-2 on the polymerization of the mixture is shown in Fig. 1 on the Enclosure. The effect of the OS-2 on the polymerization of the mixture is shown in Fig. 1 on the Enclosure.

unchanged. At 100°C the formation of cross structure was more intensive in the mixtures containing lampblack; the effect of the OS-2 on this process is shown in Fig. 1 on the Enclosure. Orig. art. has: 4 tables and 1 figure.

ASSOCIATION: Khimiko-tekhnologicheskii institut
 (Khimicheskii institut)

REF ID: A66002

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REF ID: A66002

Card 2/5

L 54820-65

ACCESSION NR: AP5013733

ENCLOSURE: 01

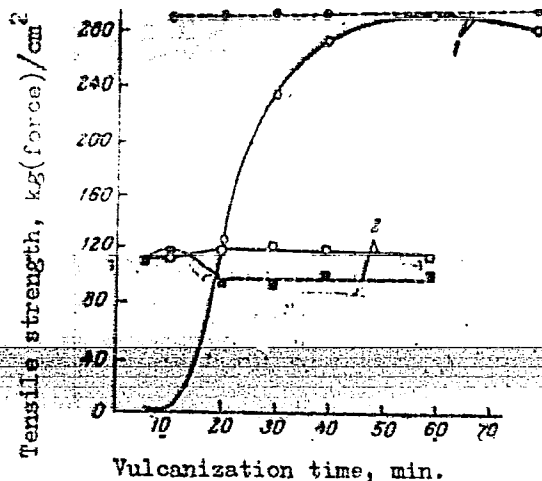


Fig. 1. OS-2 action in SKN-26 mixtures containing different types of carbon black (vulcanization temperature: 140°C). — 1 - without alkane; - - - - with 1.5 part by weight of alkane. 1 - gas carbon black; 2 - lampblack

Card 3/5

L 54820-65

ACCESSION NO: AP5043733

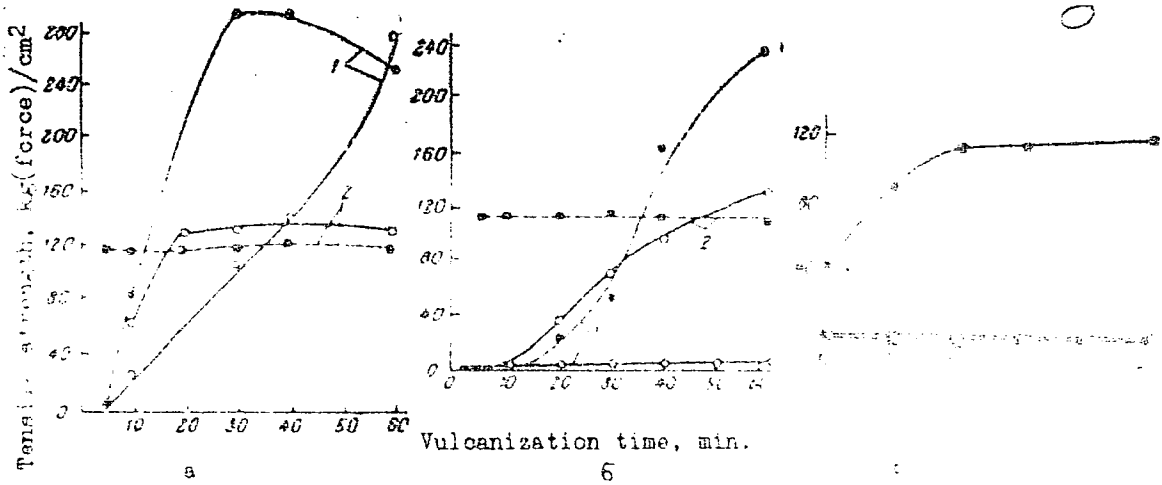


Fig. 1. Effect of alkane action in SKN-26 mixtures containing 1.5 parts by weight of carbon black at different vulcanization temperatures: 1 - 150°C; 2 - 120°C; 3 - 90°C; 4 - 60°C. 1 - without alkane; 2 - with 1.5 parts by weight of alkane; 3 - lampblack; 4 - carbon black.

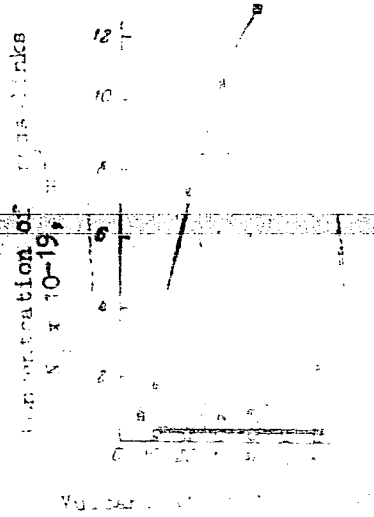
Card 4/5

L 54820-65

ACCESSION NR: AP5013733

BY: [unclear] 03

Fig. 7. The effect of 2-2 alkane on the cross-link formation in 1,4-II-2b vulcanizates in the presence of different carbon black types (vulcanization temperature 100C): _____ 6 mixtures without alkane; - - - - - mixtures containing 1.3 parts by weight of alkane. 1 - gas carbon black; 2 - lampblack



Card 5/5

I 27838-66 EWT(m)/EWP(j) RM
ACC NR: AP6002212

SOURCE CODE: UR/0153/65/008/005/0846/0850

10
B

AUTHOR: Nosnikov, A. F.; Blokh, G. A.

ORG: Resin Technology Department, Dnepropetrovsk Chemical Technology Institute im. F. E. Dzerzhenskiy (Kafedra tekhnologii reziny, Dnepropetrovskiy khimiko-tekhnologicheskii institut)

TITLE: Vulcanization¹⁵¹ of synthetic rubbers with gaseous systems on zeolite carriers. 1. Vulcanization of cis-1,4-butadiene¹⁵¹ (SKD) and sodium butadiene (SKB) rubbers with sulfur dioxide and hydrogen sulfide

SOURCE: IVUZ. Khimiya i khimicheskaya tekhnologiya, v. 8, no. 5, 1965, 846-850

TOPIC TAGS: vulcanization, synthetic rubber, sulfur dioxide, hydrogen sulfide

ABSTRACT: A study has been made of the vulcanization of synthetic rubbers with sulfur dioxide in combination with hydrogen sulfide and mercaptans. The vulcanizing systems were prepared by adsorption of these gases on A and X type zeolite carriers. Study of the sorption and desorption of the gaseous systems by zeolites showed that the bulk of the gases is retained in the zeolite structure at temperatures at which rubber mixtures are prepared and processed, and is released

Card 1/2

UDC: 678.028:66.022.37

L 27838-66

ACC NR: AP6002212

only at vulcanization temperatures. Thus, scorching is prevented and vulcanization made possible. Experiments conducted with cis-butadiene (SKD), sodium butadiene (SKB), and butadiene-styrene (SKS-30ARKM) rubber mixtures showed that these rubbers can be vulcanized with combinations of SO₂ and H₂S or 2-mercaptobenzothiazole. The physical and mechanical properties of vulcanizates thus prepared were on par with those of sulfur-vulcanized rubbers. The effect of zeolites on the properties of unfilled sulfur vulcanizates was studied for SKB rubber and NaX zeolite. It was shown that the reinforcing properties of the zeolite are very poor, and that the zeolite sharply increases the residual elongations of vulcanizates. Orig. art. has: 3 figures and 3 tables.

[BO]

SUB CODE: 11/ SUBM DATE: 30Jun64/ ORIG REF: 004/ ATD PRESS:

4/76

Card 2/2 JS

L 22745-66 EWT(m)/EWP(1) IJP(c) RM

ACC NR: AP6006354 (A) SOURCE CODE: UR/0413/66/000/002/0093/0093

AUTHOR: Cherenyuk, I. P.; Blokh, G. A.; Moshchinskaya, N. K.;
Vishnevetskiy, V. M.; Polyakova, A. A.

ORG: none

TITLE: Vulcanization of synthetic rubber. Class 39, No. 178094 ¹⁵

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 2, 1966, 93

TOPIC TAGS: synthetic rubber, vulcanization, epoxy compound

ABSTRACT: This Author Certificate describes a method for vulcanizing synthetic rubber using epoxy compounds. In order to improve the technological properties of mixes and those of vulcanization products, 2,2'-dihydroxy-1,1'-dinaphthylmethane diglycidate ester is proposed for use as an epoxy compound. [LD]

SUB CODE: 11/

SUBM DATE: 28May64

Card

1/1 *UJR*

UDC: 687.7.028.294:547.661.5

L 45822-66 EWT(m)/EWF(j)/T IJP(c) RM
ACC NR: AP6024330 (A) SOURCE CODE: UR/0021/66/000/004/0483/0487

AUTHOR: Nosnikov, O. F.--Nosnikov, A. F.; Blokh, H. A.--Blok, G. A. ³²
_B

ORG: Dnepropetrovsk Chemical Engineering Institute (Dnipropetrovskyy khimiko-tekhnologichnyy instytut)

TITLE: Vulcanization^{1/2} of butadiene-nitrile rubber^{1/2} with hydrogen sulfide in the presence of di-tert-butyl peroxide introduced on zeolites 7

SOURCE: AN UkrRSR. Dopovidi, no. 4, 1966, 483-487

TOPIC TAGS: vulcanization, synthetic rubber, hydrogen sulfide, zeolite

ABSTRACT: It is shown that rubber products based on butadiene-nitrile rubbers (SKN-26, SKN-40) can be obtained with H₂S and admixtures of di-tert-butyl peroxide DTBP (0.05-0.5 pts. by wt. per 100 pts. of rubber). Synthetic zeolites were used as carriers (Na₄ for H₂S and NaX for DTBP). Unfilled rubbers, or rubbers filled with inert fillers (chalk, etc.) were found to surpass sulfur-cured rubbers in physicomechanical properties, resistance to thermal aging, and stability toward aromatic hydrocarbons (xylene). The paper was presented by Academician AN UkrSSR Ovcharenko, F. D. Orig. art. has: 4 figures and 1 table.

SUB CODE: 11/ SUBM DATE: 30Mar65/ ORIG REF: 007/ OTH REF: 007

Card 1/1

JS

L 113901-66 EWT(m)/EWB(j)/T IJP(c) WW/JWD/RM
ACC NR: AP6015655 (A) SOURCE CODE: UR/0413/66/000/009/0072/0072

29
B

INVENTOR: Cherenyuk, I. P.; Blokh, G. A.; Polyakova, A. A.

ORG: none

TITLE: Method of curing chloroprene rubber. Class 39, No. 181273

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 9, 1966, 72

TOPIC TAGS: chloroprene, chloroprene rubber, curing, rubber curing

ABSTRACT: An Author/Certificate has been issued for a method of curing chloroprene rubber with epoxy compounds. To improve the technological properties of the mixes and the properties of the rubber, monoepoxy compounds are the epoxy compounds used. [Translation] [NT]

SUB CODE: 11/ SUBM DATE: 11Jan65/
07/

Car 1/1 207

UDC: 678.7.63.2.028.294

L 44366-66 EWT(m)/EWP(j)/EWP(k)/T/EWP(e)/EWP(l)
ACC NR: AP6019736 (A) SOURCE CODE: UR/0063/00/

AUTHOR: Nosnikov, A. F.; Borodushkina, Kh. N.; Boguslavskiy, D. B.; Chernukhina, A. F.; Khomutov, A. I.; Blokh, G. A. 45

ORG: Dnepropetrovsk Institute of Chemical Technology im. F. E. Dzerzhinskiy (Dnepropetrovskiy khimiko-tehnologicheskii institut); Dnepropetrovsk Tire Plant (Dnepropetrovskiy shinny zavod); VNII of Glass Fibers (VNII steklovolokna) 3

TITLE: Porous silicon fibers acting as carriers of gaseous vulcanizing agents and accelerators 15

SOURCE: Vses khim obshch. Zh, v. 11, no. 3, 1966, 348-350

TOPIC TAGS: vulcanization, rubber, silicon plastic

ABSTRACT: The effect of porous silicon fibers containing hydrogen sulfide, ammonia, and sulfur dioxide on the physicommechanical properties of tire rubbers was investigated. The pore diameters ranged from 2.8 Å to 75 Å. The vulcanization temperature was 143-163°C and the vulcanization duration was 10-80 minutes. The fiber contents in the rubber were as high as 10%. Up to 10 wt %, the incorporation of the silicon fibers affected neither the vulcanization process nor the mechanical properties of the tire rubbers. It was found that rubbers prepared using ammonia accelerator were qualitatively as good as those vulcanized with sulfur compounds and diphenylguanidine ac-

UDC: 666.86+675.5

Card 1/2

L 44366-66

ACC NR: AP6019736

celerator. In all cases, the tire rubbers vulcanized with ammonia exhibited excellent mechanical properties. Orig. art. has: 2 figures, 2 tables.

SUB CODE: 11/

SUBM DATE: 16Jun65/

ORIG REF: 004

Card 2/2 hs

ACC. NR: AP7000910

SOURCE CODE: UR/0138/66/000/012/0006/0008

AUTHOR: Yurzhenko, T. I.; Chuyko, L. S.; Kirichek, A. A.; Blokh, G. A.

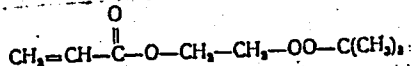
ORG: L'vov Polytechnic Institute (L'vovskiy politekhnicheskiy institut)

TITLE: Synthesis of peroxidated rubbers and nonsulfur vulcanization of these rubbers

SOURCE: Kauchuk i rezina, no. 12, 1966, 6-8

TOPIC TAGS: ~~peroxidated~~ rubber, peroxide monomer, butadiene, styrene, ~~peroxidated~~ rubber vulcanization, ~~peroxidated~~ rubber vulcanizate, nonsulfur vulcanization

ABSTRACT: A study has been made of the nonsulfur vulcanization of rubbers involving preliminary introduction of side peroxide groups in the elastomer backbone. The peroxide-group-containing ("peroxidated") rubbers were synthesized by emulsion copolymerization of butadiene, styrene, and tert-butyl 2-acrylatoethyl peroxide (AP)



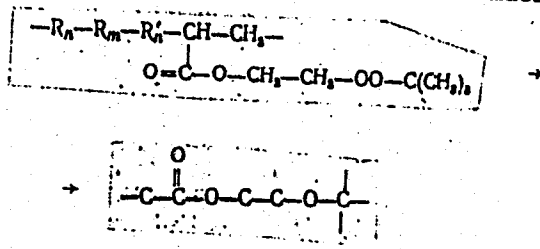
The percentages of the monomers were: butadiene, 67.5—73.0%; styrene, 25%; AP, 2.0—7.5%. The copolymerization procedure is described in the source. The rubber mixtures were prepared at 50C on mills using standard recipes for butadiene-styrene

Card 1/2

UDC: 678.760.2-139.004.12

ACC NR: AP7000910

rubbers. Vulcanizates with the best properties were obtained from peroxidated rubber containing 3.5% AP, and vulcanized at 140C for 30 min (tensile strength, 203 kg/cm²; elongation, 543%; residual elongation, 15%). The high vulcanizing effectiveness of peroxide groups, preliminarily introduced in the rubber, is due to their attachment to and regular distribution in the macromolecules:



The proposed nonsulfur vulcanization method makes it possible: 1) to control the distribution and concentration of crosslinks; and 2) to control the length and type of the crosslinks by using different peroxide monomers. Orig. art. has: 1 figure and 2 tables.

[BO]

SUB CODE: 11, 07/ SUBM DATE: 09Sep65/ ORIG REF: 004/ ATD PRESS: 5109

Card 2/2

BLOKH, G.A.; MELAMED, Ch.L.; OL'SHANSKIY, L.P.; LEVITIN, Zh.N.

Heat-resistant, waterproof, electrical insulating rubbers.
Izv.vys.ucheb.zav; khim.i khim.tekh. 4 no.5:847-853 '61.
(MIRA 14:11)

1. Dnepropetrovskiy khimiko-tehnologicheskii institut imeni
F.E. Dzerzhinskogo, kafedra tekhnologii reziny, i Berdyanskiy
savod "Azovkabel'".

(Rubber, Synthetic)

BOCHAROV, V.F., inzh.; BLOKH, G.A., doktor khimicheskikh nauk, prof.

Ion deposits of the rubber film made from synthetic latexes.
Izv.vys.ucheb.sav.; tekhn.prom. no.1:22-27 '62. (MIRA 15:2)

1. Dnepropetrovskiy khimiko-tekhnologicheskii institut. Rekomendovana
kafedroy tekhnologii reziny.
(Protective coatings) (Rubber, Synthetic)

MOKHOVA, V.K., kand.med.nauk; BLOKH, G.K., kand.med.nauk; SNEZHKOVA, S.Ya.,
vrach; IVANOVA, L.A., vrach

Goiter in Bezhetsk District, Kalinin Province. Trudy KGMI
no.10:55-56 '63. (MIRA 18:1)

1. Iz kafedry fakul'tetskoy terapii (zav. kafedroy - prof. N.N.
Vysotskiy) i kafedry fakul'tetskoy khirurgii (zav. kafedroy -
zasluzhennyy deyatel' nauki RSFSR prof. V.S.Semenov) Kalinin-
skogo gorodskogo meditsinskogo instituta.

BLOKH, G.M.; BLOKH, Ya.L.; DORMAN, L.I.

Some results of calculations of the expected spectrum of variations in a dynamic model of the Forbush effect. Izv. AN SSSR, Ser. fiz. 28 no.12:1985-1988 D '64 (MIRA 18:2)

BLOKH, G. N.

"Three Years of Experience at the Stalino LOR Clinic in Dealing with Foreign Bodies in the Trachea and Bronchus," Vest. Oto-rino-laringol., No.4, 1948.

Otorhinolaryngological Clinic, Stalinsk Med. Inst., Donbass

BLOKH, G. S.

Evaporation, Clay

Effect of sulfite-alcohol slops on accelerating evaporation in clay drying. P. P. Budnikov, M. I. Khiterovich, G. S. Blokh., Dokl. AN SSSR, 82, no. 1, 1952.

SO: Monthly List of Russian Accessions, Library of Congress, April 1952 ~~1952~~, Uncl.

6-25

Effect of sulfite-alcohol wash water on the ultimate shear stress of clay mix. P. P. BUDNIKOV AND G. S. BLOKIN. *Doklady Akad. Nauk S.S.S.R.*, 89 [6] 897-900 (1953). Shear stress of brick clay mix containing 10 to 28% moisture and 0.1 to 1% sulfite-alcohol wash water was determined with a conical plastometer. Plastic strength was reduced by the surfactant, but asymptotic relationship was observed between the content of the surfactant and the decrease of the ultimate shear stress. The use of a surfactant makes possible a decrease in the amount of mixing water.

B.Z.K.

Investigations of clay by the Brabender cone penetrometer.
I. A. Alperovich, P. I. Pertshteyn, and G. S. Blokh (*Glass & Ceramics, Moscow*, 1953, 10, No. 8, 32). Formulas are given for calculating limiting shear stresses in clay in the plastic state and for determining the yield value of clay at low moisture-content. Experiments showed that the cone penetrometer is suitable for determining the consistency of clay (i.e., degree of wetness). A method (and its theoretical basis) for determining the surface moisture-content and the surface moisture-gradient of green products necessary for the determination of the drying schedule is given. The plastometer described is simple and gives reproducible results.
Brit. Ceram. Res. Ass. Abstr. (R.B.C.)

MA

MA
②
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1 BLOKH-G.S.

54. The semi-dry pressing of clay pipes.—G. S. BLOKH, P. M. ZARONIS, E. L. ROKH-VARQER, and N. P. SHEVERDYAEV (*Glass & Ceramics*, Moscow, 12, No. 6, 17, 1955). In Russian. The authors describe a hydraulic press and the procedure of semi-dry pressing, which they claim is simpler and cheaper than plastic shaping. The mix for pressing at 8-10% moisture content comprised 65% Kudinovskii clay and 35% grog from the same clay. Drain pipes 4-7 ft. long and c. 8 in. dia. were made at 1,400 lb/sq. in., taking 8 min. per pipe. (1 fig.)

BLOKH, G.

I-10

USSR/Chemical Technology - Chemical Products and
Their Applications - Silicates. Glass.
Ceramics. Binders.

Abs Jour : Ref Zhur - Khimiya, No 3, 1957, 9006

Author : Budnikov, P., and Blokh, G.

Inst :
Title : The Indirect Evaluation of the Frost Resistance
of Construction Materials.

Orig Pub : Stroit. materialy, izdeliya i konstruktsii, 1956,
No 3, 32-34

Abstract : An attempt is made to establish a correlation
between data on the direct and on the indirect
evaluation of the frost-resistance of construc-
tion materials on the basis of an analysis of
literature data as well as of direct experimen-
tal material. It is noted that a successful
solution of the problem requires that the

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USSR/Chemical Technology - Chemical Products and I-10
Their Applications - Silicates. Glass.
Ceramics. Binders.

Abs Jour : Ref Zhur - Khimiya, No 3, 1957, 9006

following factors be taken into account:
the method used in the determination of the
frost-resistance coefficient (FRC); the
additional moisture absorption during freezing
and during thawing; the migration of moisture
on freezing; the evolution of a part of the
freezing moisture at the surface of the material;
and the incompleteness of ice formation during
freezing. It is shown that a clear correla-
tion between the magnitude of the FRC and the
frost resistance of the articles, determined
by the direct method, can be established only
in those cases when the materials compared
have properties which agree with respect to

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BLOKH, G.S.

PALAGIN, Grigoriy Sergeyevich; BLOKH, G.S., nauchnyy redaktor; GLADYSHEVA, S.A., redaktor; GILSON, P.G., tekhnicheskiy redaktor

[Frost resistance of ceramic building materials] Morozostoikost' keramicheskikh stroitel'nykh materialov. Moskva, Gos.izd-vo lit-ry po stroit.materialam, 1957. 56 p. (MIRA 10:9)
(Ceramic materials)

LUNDINA, Miriam Grigor'yevna; BERENSHTEYN, Pepsya Iosifovich; BLOKH,
Grigoriy Semenovich; GRINBERG, S.M., red.; GILKINSON, P.G.,
tekhn. red.

[Semi-dry press process for the manufacture of bricks] Proizvodstvo
kirpicha metodom polusukhogo pressovaniia. Moskva, Gos. izd-vo
lit-ry po stroit., arkh. i stroit. materialam. 1958. 162 p.
(Pressed brick) (MIRA 11:9)

BLOKH, G., kand. tekhn. nauk; LUNDINA, M., kand. tekhn. nauk; BOKHVARGER, Ye.,
kand. tekhn. nauk; KATSMAN, L., inzh.

Using combined technological processes in making large clay-
slag-concrete wall blocks and panels. Stroi. mat. 4 no.11:32-34
N '58. (MIRA 11:12)

(Concrete blocks)

BLOKH, G.S., kand.tekhn.nauk; SHULIKO, L.F., kand.tekhn.nauk

Technological layouts and parameters of the production of
glazed facing tiles in an automated plant. Trudy NIISTroiker-
amiki no.16:3-14 '60. (MIRA 15:2)

(Ceramic plants)
(Tiles)

BLOKH, G.S.; ZAYONTS, R.M.; SOVETOVA, L.K.

Using the method of the reciprocal displacement of liquids for
determining the size of pores of ceramic products. Stek. 1 ker.
17 no. 11:30-33 N '60. (MIRA 13:12)
(Ceramics)

BLOKH, G.S., kand.tekhn.nauk

Frost-weathering of bricks in a mild climate. Trudy NIi Stroikeramiki
no. 14:141-153 '59. (MIRA 14:1)
(Bricks--Cold weather conditions)

BLOKH, G.S., kand. tekhn. nauk; CHERNYAK, Ya.N., kand. tekhn. nauk;
BALKEVICH, V.L., kand. tekhn. nauk; GAK, B.N., kand. tekhn.
nauk; KORDONSKAYA, R.K., kand. tekhn. nauk; REMPEL', A.M.,
kand. tekhn. nauk; ZHUKOV, D.V., nauchnyy red.; YUSHKEVICH,
M.O., red. toma; SKRAMTAYEV, B.G., glav. red.; BALAT'YEV,
P.K., red.; KITAYEV, Ye.N., red.; KITAYGORODSKIY, I.I., red.;
KRZHEMINSKIY, S.A., red.; ROKHVARGER, Ye.L., red.; KHOLIN, I.I.,
red.; GURVICH, E.A., red. izd-va; SHERSTNEVA, N.V., tekhn. red.

[Handbook on the manufacture of structural ceramics] Spra-
vochnik po proizvodstvu stroitel'noi keramiki. Moskva, Gos.
izd-vo lit-ry po stroit., arkhitekt. i stroit. materialam.
Vol.1. [General information and production control] Obshchie
svedeniia i kontrol' proizvodstva. Pod red. M.O.IUshkevicha.
1961. 464 p. (MIRA 15:2)

(Ceramics) (Building materials)

BLOKH, G.S.; SHULIKO, L.F.; ROKHVARGER, Ye.L.

Mechanized flow-line production of facing tiles by casting on conveying units. Stek. 1 ker. 18 no.2:1-5 F '61. (MIRA 14:3)
(Tiles)

BLOKH, G.S.; SHULIKO, L.F.

Systems for an automated factory for the quick firing of facing
tiles. Stek. 1 ker. 18 no.6:17-23 Je '61. (MIRA 14:7)
(Kilns) (Tiles)

BLOKH, G.S.; ZABREBNEVA, A.V.; ZUBAREV, K.A.; PESHURO, S.S.; TVOROGOVA,
Ye.L.; GNATYUK, T.A.

Producing gypsum fiber sheets on round-screen sheet-making
machines. Stroi. mat. 8 no.2:15-17 F '62. (MIRA 15:3)
(Gypsum products)

ELOKH, G.S., kand.tekhn.nauk; LITVINOV, A.N., inzh.

The durability of "VO" corrugated asbestos-cement sheets of ordinary shape in roofs of public buildings. Trudy NIIAsbesttsementa no.13:3-28 '62. (MIRA 15:12)

(Roofing, Asbestos-cement)

БЛОКН, Г.С., канд.техн.наук

Rapid method of testing asbestos cement for frost resistance.
Trudy NIIAsbesttsementa no.13:29-50 '62. (MIRA 15:12)
(Asbestos cement—Thermal properties)

BLOKH, G.S., kand.tekhn.nauk

The effect of freezing and thawing conditions on results of the
determination of the frost resistance of asbestos cement. Trudy
NIIAsbesttsementa no.13:51-67 '62. (MIRA 15:12)
(Asbestos cement—Thermal properties)

BLOKH, G.S., kand.tekhn.nauk; EL'KINSON, R.Z., kand.tekhn.nauk;
LITVINOV, A.N., inzh.

The service of corrugated asbestos-cement sheets in the lining
of the draw-off towers of cooling towers. Trudy NIIAsbestsementa
no.13:79-87 '62. (MIRA 15:12)
(Asbestos cement) (Cooling towers)

BERKOVICH, T.M., kand.tekhn.nauk; BLOKH, G.S., kand.tekhn.nauk;
BERZEMISHVILI, G.A., inzh.; LEVICHEVA, M.M., inzh.

Effect of the operating conditions of a sheet-molding machine
on the frost resistance of autoclaved asbestos cement. Trudy
NIIAsbestsemen'ta no.13:88-89 '62. (MIRA 15:12)
(Asbestos cement—Thermal properties)

BLOKH, G.S., kand.tekhn.nauk; KOGAN, G.S., kand.tekhn.nauk; ZAGREBNEVA,
A.V., kand.tekhn.nauk; YAMPOL'SKIY, E.M., inzh.

Obtaining new materials made of gypsum-cement-pozzolan binding
material and organic fiber on cylinders. Stroim. 8 no.11:
8-10 N '62. (MIRA 15:12)

(Building materials)

BLOKH, G.S.; DANILIN, A.S.; EL'KINSON, R.Z.

Study of the durability and reliability of asbestos-cement roofing
on public buildings. Trudy NIIAsbesttsementa no.16:122-144 '63.
(MIRA 16:8)

(Roofing, Asbestos cement)

SLAVINA, T.M.; BLOKH, G.S.; SOKOLOV, P.N.

Effect of the addition of gypsum in cement on the frost resistance
of asbestos cement. Trudy NIAsbestsementa no.16:145-155 '63.
(MIRA 16:8)

(Asbestos cement)

BLOKH, G.S., kand.tekhn.nauk

Study of the mechanism of frost action on asbestos cement.
Trudy NIIAsbestsementa no.12:55-79 '61. (MIRA 16:8)
(Asbestos cement)

BLOKH, G.S.; RUDNITSKAYA, R.I.; KUBICH, A.V.

Effect of the volumetric weight of asbestos cement on its resistance
to frost. Trudy NIAsbesttsementa no.17:3-13 '63.

(MIRA 17:10)

BLOKH, G.S.; ZAGREBNEVA, A.V.; TVOROGOVA, Ye.L.

Filtration properties of gypsum fiber suspensions. Trudy NIAsbest-
tsementa no.17:90-102 '63. (MIRA 17:10)

BLOKH, G.S.; LEVIN, A.Z.

Field inspection of soft roofing on industrial buildings.
Trudy NIIAsbesttsementa no.17:117-138 '63.

(MIRA 17:10)