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INORGANIC HEAT INSULATION MATERIALS

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ARTICLEINFO.	Annotatsiya
Ключевые слова: Construction,	Inorganic heat insulation materials including mineral cotton,
Inorganic, Mineral wool, Mineral	glass fibers, foam glass, swollen perlite and vermiculite, in the
cotton stones.	composition asbestos has been heat insulation materials, porous concrete and others enters .

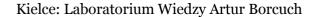
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Construction of materials each one type to himself special physical, mechanical, chemical and special technological to properties have will be of items composition, structure physical-chemical, technological processes under the influence of change connect all changes its properties. Construction materials come to exit according to natural and artificial will be They are properties relatively plastic (bitumen, clay soil), elastic (wood, steel, rubber), brittle (ceramics, glass, concrete, cast iron), material strength looking strength high (steel, granite, glass), strong (concrete, wood, polymer concrete, concrete) brick) and low strength (gypsum, limestone, gravel, cellular concrete) types divided. Materials use to the conditions according to constructive (natural stone materials, concrete, ceramics, wood, plastic and etc.) and special (heat and sound insulation, waterproofing, corrosion resistant to fire resistant to radiation protective, biological to the environment resistant and etc.) to species is divided.

Inorganic heat insulation materials including mineral cotton, glass fibers, foam glass, swollen perlite and vermiculite, in the composition asbestos has been heat insulation materials, porous concrete and others enters.

Mineral cotton (MV) and from him prepared items. Mineral cotton silicate from solutions removable fibrous heat insulation materials . Rocks (limestone, marl, dolomite, Ioyli _ shale, basalt, granite, diorite and others), metallurgy industry waste (blast furnace and fuel slags) and construction materials waste (mud and silicate brick _ shards) him work release for raw material being service does.

Density according to mineral cotton 75, 100, 125 and 150 marks divided. He is fireproof does not rot, water and the heat less spends _ Mineral cotton himself different heat insulation from the mineral received materials: felt, fabric, half bikr and bikr plates, shell, segment and others to be made semi-finished product is considered Mineral cotton fabric, sheet or roll material being, one or two side





ripe threads with sewn, bitumenized paper from coated mineral cotton consists of

Mineral wool (MV) - easy soluble rocks (limestone, marls, dolomites _ _ and etc.), metallurgy and fuel slag (clay and silicate brick fragments) based on received vitreous fibrous is material



Mineral cotton

Tola diameter 5-15 μ m, length 2-40 mm. Mineral cotton preparation two main from the process consists of: in vagrankas (shakhtali melting khumdoni) raw material solution harvest to do the solution to fibers convert. In Vagranka raw material hard It is diluted with fuel (coke) at 1300-1400°C. In the lower part of Humdon special through the hole solution non-stop is issued.

Average density depending on mineral cotton brands (kg/m^3) : 75, 100, 125 and 150. Fire resistant, hygroscopic small and water environment resistant, biological environments durable. Mineral cotton is granulated and wrapped without transported; walls space, between floors plates holes, hot water highways and another as IIM in constructions is used. Mineral cotton felt, mats (beds), semi-finished products and bikr plates, waffles in structure items, shells, segment and sh.k. _ items preparation for semi-finished product is considered

Mineral cotton stones - list or wrapping material being, one or both the text ripe threads with is sewn and bitumen soaked on paper is wrapped. Stones length 3000-5000, width 500 and 1000 and thickness 50-100 mm. The stone is average in 100 marks by density (kg/m^3) , working mm. in dimensions work is issued. Glass fiber based on items construction constructions, technological equipment at a temperature of 200°C used pipeline, industry cold rooms the walls heat in isolation is used. Glass cotton dissolved from raw materials received out of order from glass fibers located consists of is material. Cotton wool density 75-125 kg/ m^3). Fiberglass metal, plate, strip and another stuff, that's it including tissue items is prepared.

Foam glass - g' ovak structured heat insulation material. Foam the porosity of the glass is 80-95 percent, the density is $200-600 \text{ kg/}m^3$, compressibility strength is 2-6 MPa. From this in addition to the sparkling water in the bottle resistance to cold durability, non-flammability, sound good swallow with separate stands, him easy cutting and work can.

Asbestos based on items Asbestos based on to items asbestos paper, hemp, cloth, plate and s.k.s enters _ Items Gardeners (starch , casein glue and b.) on the basis or without a gardener taken can _ Asbestos-paper sheet or wrapping material being, below in oMchams work produced: - sheets - 1000x950 mm, thickness 0.5; 1.0 and 1.5 mm.; - wrapping papers canvas width 670, 950 and 1150



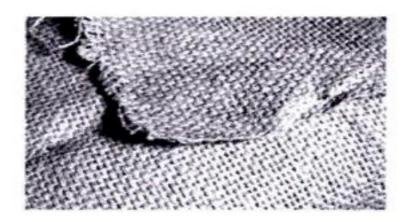
mm., thickness 0.3; 0.4; 0.5; 0.65 and 1.0 mm. Asbestos paper average density 650-236 1500 kg/m3, thermal conductivity 0.1 W/(m.°C), most high worker temperature 500°C.

Asbestos-hemp - diameter 0.75-55 mm . one with how many heard from threads is prepared. Asbestos hemp small diameter pipelines (up to 89 mm.) worker temperature up to 500°C heat insulation for is used.

Asbestos-fabric - asbestos from the threads knitting lathes using is taken and length is 25 m. up to, 1 m wide, 1.4-3.5 mm thick fabric in the form of as a wrapping material work is issued.

Asbestos fabric average density 600~kg/m3, heat conductivity $0.1~W~/(~m.^{\circ}C~)$. Asbestos material small diameter pipes heat insulation for is used. Asbestos fabric surface parisuna with will be covered .

Asbestos-beds-asbestos of cloth IIM (mineral or $_$ cotton wool , fiber asbestos) filled the bed in the form of is prepared. Beds length 8-10 m., thickness 30-50 mm., width on demand according to will be Asbestos bed average density 300 - 400 kg/m3, heat conductivity 0.09 -0.11 W/(m. $^{\circ}$ C).



Asbestos cloth

Sovelit mass 85 percent on dolomite (CaC03 MgS03) and 15 per cent asbestos mixture based on is taken. Sovelit based on 500 mm long, 170, 250, 500 mm wide, 40-75 mm thick plates, segments and length 500 mm., internal diameter 5 $7 ^2 6$ mm., thickness 40-80 mm. half cylinder is prepared .

Sovelit powder in the water can be melted and isolated surface rubbing can _ Sovelit of items steady in the case average density up to 400 kg/m3, heat conductivity up to 0.083 W/(m.°C). it didn't work. Sovelit items industry and technological equipment, pipelines surface worker temperature up to 500°C when thermal insulation for is used.

Asbestos - mineral fiber mastics - inorganic binders based on water adding is prepared. They are industry equipment and do not pipe heat insulation for is used. Mineral cotton mixed mineral cotton, asbesto, clay and portlandseinent based on is taken. This is isolation of the material dry case average density 400 kg/m3, heat conductivity coefficient up to 0.28 W/(m.°C). will be.

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