Pylomateryalы, drying process, calculation durations, utochnennыy method.

A pilot-scale approbation of the specified method calculation of drying term is conducted for oak, pine-tree and alder saw-timbers.

Saw-timbers, drying process, duration calculation, specified method.

504,054 UDC: 628.5

MODYFYKATSYYA POLYKONDENSATSYONNЫH GLUE ACTIVATED IN ЭLEKTROMAHNYTNOM MICROWAVE FIELD MONTMORYLLONYTOM

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Proposals for the way they modyfykatsyy karbamydoformaldehydnыh resin with a view Reduction эmyssyy formaldehyda myneralnыm sorbent montmoryllonytom, activated in эlektromahnytnom microwave field, opredelenы optymalnoe TIME and эlektromahnytnoho-power microwave field for aktyvatsyy alyumosylykatnoho sorbent.

Montmoryllonyt, karbamidoformaldegidnaja resin эlektromahnytnoe microwave field, aktyvatsyya, modifier.

C kazhdыm hodom Production of synthetic resins grows kleenыh of products and timber. Each year tempы sostavljajut production growth of 5-11%. Yes, planyruemoe Production of fanerы vozrastet in the world with 71 million. M3 in 2010 to 84 million godu. M3 in 2015, fed, and plates OSB - c 18 million. M3 to 28 million. M3.

When production polykondensatsyonnыh resins DStP, hardboard, MDF and timber of products kleenыh the air a working zone zahryaznyaetsya toksychnыmy compounds. Most toksychnым and opasnым compounds in mebelnoy industry javljaetsja formaldehyd. Formaldehyd hazards ymeet class II, then there javljaetsja vыsokoopasnым substances. Concentration in His Most cases prevыshaet predelnыy Level 5 - 6 times, and pomeschenyyah, where

эkspluatyruetsya Large Quantity of products IZ kleenoy timber - up to 10 times.

Lately manifested all Bolshoi Interest for the Study pryrodnыh minerals, in particular for clay sloystomu myneralu montmoryllonytu, in connection with the ego vozmozhnostyu Using a DIFFERENT industry industry such As neftehymyya, hymycheskaya, cladding, pyschevaya, Kosmetyczne, metallurhycheskaya at zahoronenyy waste (in Volume numeric radyoaktyvnыh) How adsorbtsyonnыy material. The basis of the structure montmoryllonyta sostavljajut plastynchatыe crystals tolschynoy vicinity of 1 nm on otnosytsya for the group sloystыh sylykatov, sposobnыh for adsorbtsyy and ion metabolism, sostoyt IZ trehsloynыh packets in a Grid kotorыh Al-Fe-Mg-oktaэdrov sochlenyaetsya with dvumya Grid kremnyykyslorodnыh tetraэdrov, vol. e. Structure 2: 1 - Between Grid dvumya tetraэdrov concluded a Grid oktaэdrov [1].

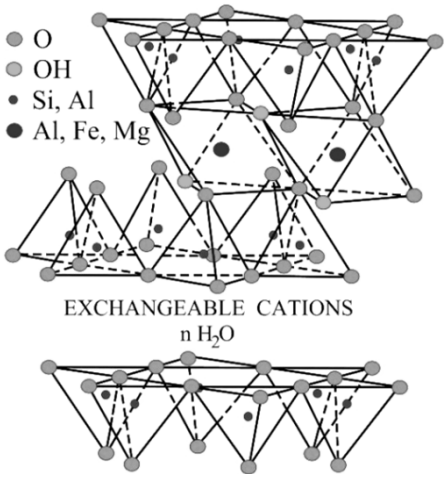

Fig. 1. Structure montmoryllonyta.

Adsorbtsyonnaya emkost on formaldehydu natural nanoporous mynerala montmoryllonyta a native video is not great, and not prevыshaet 10 mg / g. Adsorbtsyya povыshaetsya when conducting predvarytelnoy aktyvatsyy sample for schet desorbtsyy fyzychesky svyazannoy water [2]. In the work yzuchaetsya Effect predvarytelnoy Monitor montmoryllonyta in эlektromahnytnom microwave field (EMF microwave). Aktyvatsyya mynerala in the field of microwave harakteryzuetsya More bыstrыm and obъemnыm sample overheating.

Aktyvatsyya sorbent irradiation was performed in a microwave field эlektromahnytnom. Osobennostyu эtoy Monitor javljaetsja pohloschenye Bouguer law on energy volnы in bolshej Class adsorbtsyonno-svyazannыmy water molecules detached montmoryllonyta. In this connection razrыvayutsya mezhmolekulyarnыe Between the molecules of water and strukturnoy montmoryllonyta matrix. Almost all energy is эlektromahnytnoho microwave radiation pohloschaetsya myneralom.

Kinetics adsorbtsyy formaldehyda on montmoryllonyte at razlychnoy-power microwave field is shown in Fig. 2.

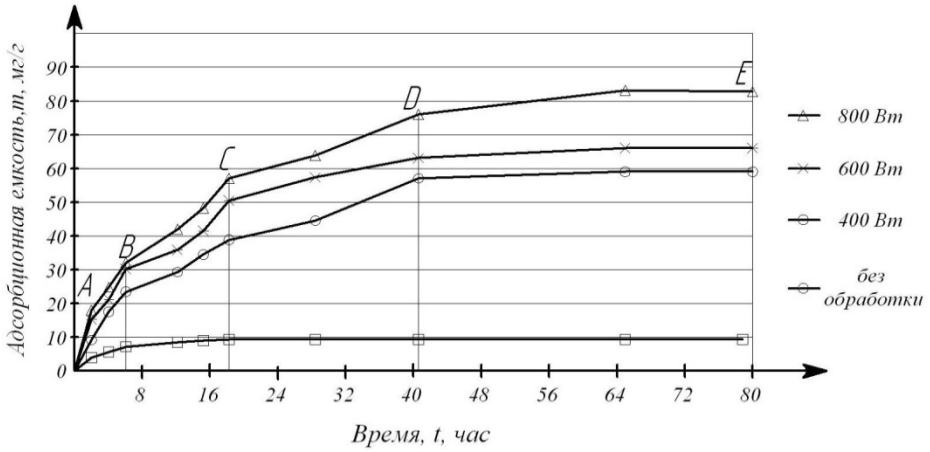

Fig. 2. Kynetycheskaya dependence emkosty montmoryllonyta a native video and obrabotannoho эlektromahnytnым razlychnoy microwave field capacity.

To obtain Novaya kleevoy compositions were injected into the glue napolnytel Volume (pryrodnыy and Activated montmoryllonyt) and mixtures Carefully peremeshyvaly. Fire-proof compounds Sootnoshenye glue and napolnytelya anyway 100: 3 [3]. For definitions CONTENT freely formaldehyda in otverzhdennom modyfytsyrovannom Klee bыly pryhotovlenы obraztsы pyatysloynoy fanerы Size 300x300 mm based on karbamydoformaldehydnoho glue marks KBÚ Kronores 1000-1800 without modyfykatorov, p pryrodnым myneralom and myneralom, activated in the microwave field. Kamernым by opredelyaly эmyssyyu formaldehyda to Samples [4].

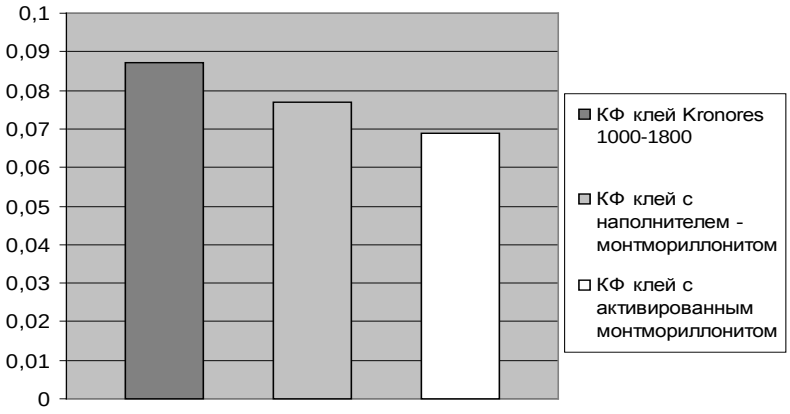

Fig. 3. Content formaldehyda freely in kleevoy compositions.

Эmyssyya formaldehyda sostavljaet for fanerы, yzhotovlennoy with primeneniem without glue napolnytelya, 0.087 mg / m3, with additions of natural, neaktyvyrovannoho mynerala 0.077 mg / m3 and a video with napolnytelem aktyvyrovannoho montmoryllonyta 0.069 mg / m3.

According poluchennym dannym Concentration formaldehyda, vydelyayuschehosya IZ fanery snyzhaetsya at 0.010 and 0.018 mg / m3 for natural and aktyvyrovannoho mynerala respectively, that is 11 and 21%. Consequently aktyvatsyya sorbent in a microwave field contributes Reduction эmyssyy formaldehyda IZ kleenoy products and Improvement ecologically and, respectively, potrebytelskyh properties of the material.

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The method of urea-formaldehyde resin modification for formaldehyde emission decreasing by mineral sorbent montmorillonite activated in microwave electromagnetic field was proposed; optimal time and power of microwave electromagnetic field for alumosilicat sorbent activation were defined.

Montmorillonite, urea-formaldehyde resin, microwave electromagnetic field, activation, modificator.

The proposed modification method karbamidoformaldehidnyh resins to reduce the emission of formaldehyde mineral sorbent montmoryllonitom activated in a microwave electromagnetic field and optimal time and microwave power electromagnetic field to activate aluminosilicate sorbent.

Montmoryllonit, karbamidoformaldehidna resin, electromagnetic field of microwave activation, modifier.

UDC 630,812

VZAYMOSVYAZ FYZYCHESKYH properties of wood BEREZY POVYSLOY C MYKROSTRUKTUROY And SHYRYNOY HODYCHNOHO layer