In the work predstavlenы main characteristics lakokrasochnыh materials based on vыsыhayuschyh oils. The influence of research on modyfykatorov vodostoykost, termostoykost and adhezyonnuyu prochnost coatings for timber structures. Vыbrannoe optymalnoe Contents kanyfoly for Improvement of physical and mechanical properties plenky modyfytsyrovannoho based on linseed oil.
Hardwood, Lnyanoe oil kanyfol, vodostoykost, termostoykost, adhezyonnaya prochnost.

The paper presents the main characteristics of coatings based on drying oils. The influence of modifiers on water resistance, heat resistance and adhesion strength of coatings for structures with wood. The selected optimum content of rosin to improve the physical and mechanical properties of films based on the modified linseed oil.
Wood, linseed oil, rosin, water resistance, heat resistance, adhesive strength.

UDC 674,047

CLASSIFICATION OF MAJOR INDUSTRIAL wood drying in complexity

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Shows the version of the classification of main industrial timber drying complexity. The determining factors are basic (conditional) density, porosity, shrinkage ratio values in plain radial direction relative to the fibers. Wood species is divided into two classes rated "A" and "B".
Density, moisture, tree species, rating, volohoprovidnist, drying shrinkage, porosity, medullary rays macropores.

Trying to create a classification for industrial wood drying in complexity KTM given in [1] where the classification assigned by the division of tree species density [2, 4]. However, apart from density to volohoprovidnist wood is affected by many other factors.

First of all, the volohoprovidnist affect the structure of wood: cross-sectional size and number of vessels per unit area, the distribution of vascular perforation type of wall area of contact of vessel walls, the presence of impurities in the cavities of the vessels. Thanks to mikrokapilyariv, moisture in the wood can move and within the walls of the cells, which is very important in the study of volohoprovidnosti wood. In the drying process should also bear in mind that in growing tree trunk water moves along the radial deviation, it proves much more volohoprovidnist along the fibers and the difference in the radial volohoprovidnosti (a'_r) and plain (a'_t) directions relative to the fibers.

The nature of the impact of anatomical features of the structure of wood in the drying process can be described mathematically materialize and in such quantities as conventional (basic) density (ρ_{in}), Plain ratio (β_t) To radial shrinkage of wood (β_r) And the largest total porosity of wood (PP) by the expression:

$$\mathrm{R}_{\text{п}} = \frac{\rho_{\text{у}}}{\Pi_{\text{п}}} \cdot \frac{\beta_{\mathrm{t}}}{\beta_{\mathrm{r}}}. \qquad (1)$$

Special attention should be paid to the presence of wood parenchyma tissue, which include two types: axial and radial (radial). Parenchymal tissue (which are deposited and move organic matter) formed napivzaderev'yanilymy cells that are not only much lower strength than mechanical fabric, but much larger size shrinkage, which often leads to the formation of cracks during drying. Availability parenchyma has a dual effect on the drying process. A large proportion of parenchyma in wood, even the location of the narrow bands in the space of a positive effect on the drying process. Conversely, a small fraction of the parenchyma that wide strips evenly distributed in the volume negatively affect the drying process and quality vysushuvanoho material. The ratio between the coefficients in the radial volohoprovidnosti (a'_r) and plain (a'_t) areas defined [5] for approximate expression:

$$\frac{a'_r}{a'_t} = 1 + \frac{2Л}{100}, \qquad (2)$$

where L - volume medullary rays in the wood%.

However, this proposed ratio (2) analyze the effect of the complexity of the structure of wood drying would be incorrect, as is the same amount (volume) of medullary rays can have both positive and negative aspects.

Full porosity of wood (Gg%) with humidity saturation point (Wt.n%) determine if, when air-filled macropores and mikrokapilyary - water. Then due to macropore porosity of wood (N%) determined by the volume of swollen woody material in one (1 cm3) volume of content:

$$\Pi_{\text{н}} = \left[1 - \frac{\rho_{\text{у}} + 0{,}267\rho_{\text{у}}}{\mathrm{Ps}_{\text{н}}}\right] \cdot 100, \qquad (3)$$

where Rsn - density of woody material in the most swollen state Rsn = 1,377 g / cm3; $\rho_{\text{у}}$ - Conventional (standard) density, g / cm3.

Substituting these data, we obtain the maximum porosity largest macropores:

$$P_{Categories} = 100\text{-}92\rho_{in}. \qquad (4)$$

The resulting mikrokapilyarna porosity, if we assume that the size mikrokapilyariv are the same in the dry and wet determined by data from derevynoznavstva [4] value Pr = $26.7\rho_{in}$. Then the total porosity is the sum of wood PP = Mo + Pr or,

$$P_{Section} = 100\text{-}65{,}3\rho_{in}\%. \qquad (5)$$

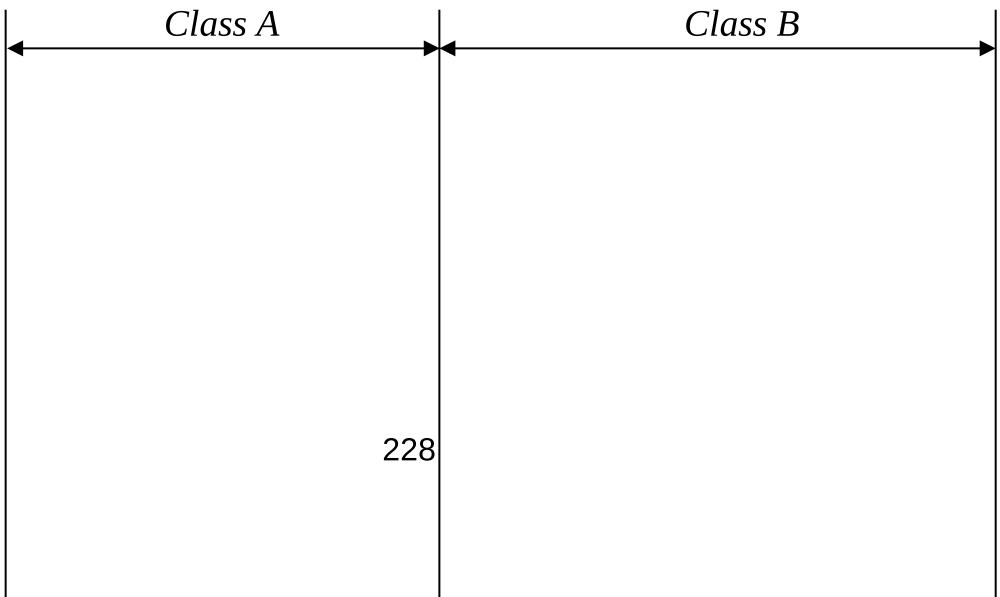
The calculation of the ranking of trees in complexity drying are shown in Table. and graphically depicted in Fig. 1.

As can be seen from the table. and Figure 1, based on the breed of pine, a material conditional, then, taking into account that the density can vary between 24%, or ± $0{,}12\rho_{in}$, The pine rating can vary in the range of 1.025 to 1.059. Therefore, the value of trees on the rating of class A can be limited value = Rp 1,100. According to the schedule (Figure 1) all proposed MWC [1] species (Class A) the complexity drying remained in its class - class A.

Draw the line of separation between classes B and C was extremely difficult task, obviously not materialized the distribution of vascular perforation type and other factors. Thus, the calculation of the rating on the complexity of wood drying under a modified formula (1′) Found no clear division into classes B and C.

$$R_{п} = \frac{100 \cdot \rho_y}{100 - 65{,}3\rho_y} \cdot \frac{\beta_t}{\beta_r}. \qquad (1')$$

For example, species such as beech, sycamore, maple, which are within the class, have a higher rating than the (elm, elm, elm, ash) classified in Class C as vazhkovysyhayuchi. In connection with the above timbers class B and C it is advisable to combine into one class - Class B, as shown in Fig. 1.



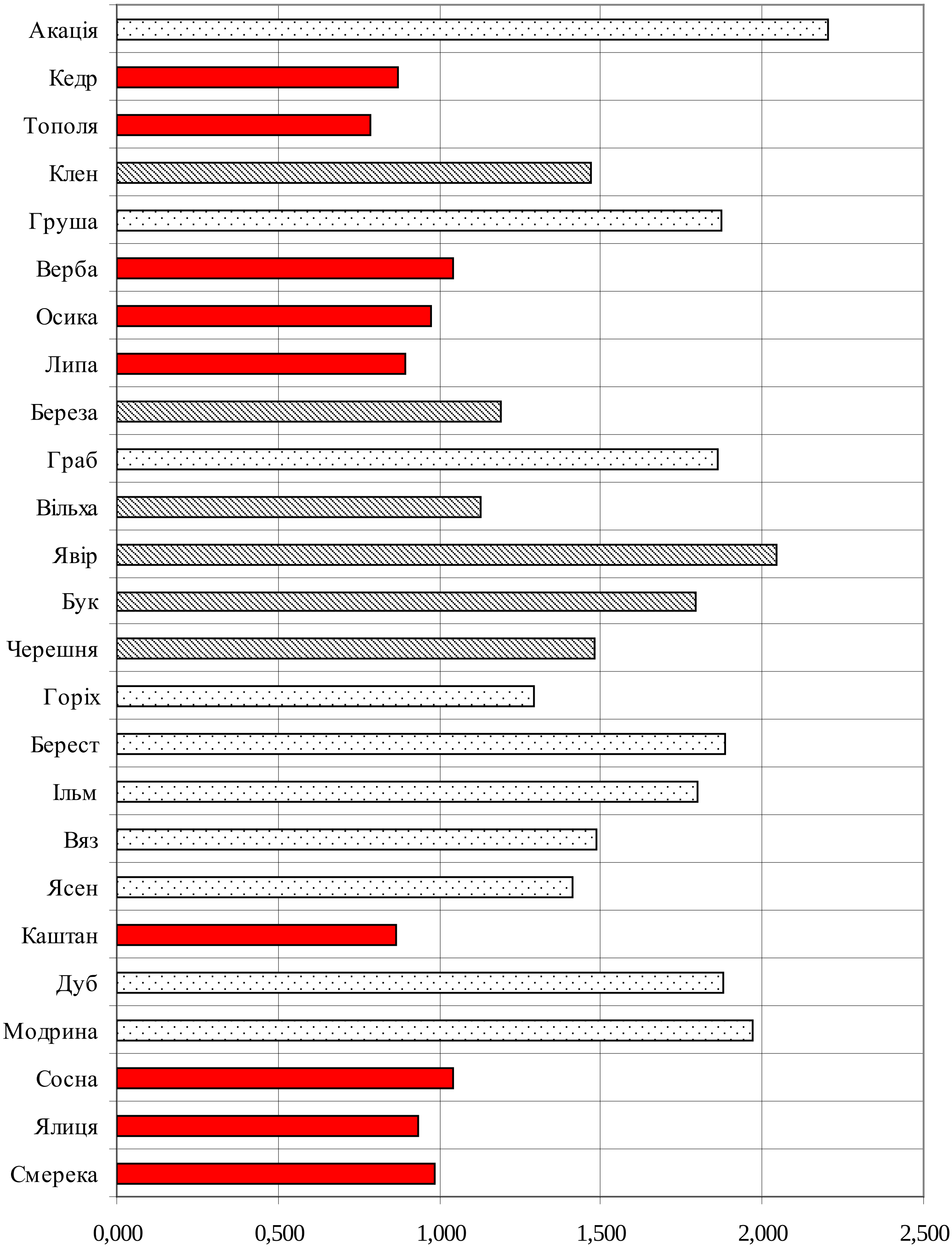


Fig. 1. Rating trees in complexity drying:
- Class A; - s B; - Class (cording KTM [1])

1. Rating trees in complexity drying.

Number p / p	Wood	Conditional density, ρ_{in}G / cm3	Shrinkage ratio,%		β_t/β_r	Porosity,%			Rating Rp, g / cm3
			β_t	β_r		Mo	Pr	PP	
1	Spruce	.365	7.8	3.8	2.053	66.42	90.25	76.17	0,984
2	Fir	0.350	7.8	3.8	2.053	67.80	90.66	77.15	.931
3	Pine	.400	7.7	4.0	1,925	63.20	89.32	73.88	1.042
4	Larch	.540	7.8	3.3	2.364	50.32	85.58	64.74	1.972
5	Oak	.570	8.9	4.3	2070	47.56	84.78	62.78	1.879
6	Chestnut	.378	7.4	4.3	1.721	65.22	89.91	75.32	.864
7	Ash	.560	8.0	5.0	1,600	48.48	85.05	63.43	1,413
8	Elm	.535	8.3	4.6	1.804	50.78	85.72	65.06	1.484
9	Elm	.580	8.3	4.3	1,930	46.64	84.51	62.13	1.802
10	Berest	.603	10.8	5.7	1.895	44.52	83.90	60.62	1.885
11	Nut	.490	8.8	4.9	1.796	54.92	86.92	68,00	1,294
12	Merry	.543	8.8	5.0	1.760	50.04	85.50	64.54	1,481
13	Beech	.560	11.8	5.8	2.034	48.48	85.05	63.43	1.796
14	Sycamore	.590	8.3	3.9	2,128	45.72	84.25	61.47	2.043
15	Alder	.430	8.3	4.4	1,886	60.44	88.52	71.92	1.128
16	Hornbeam	.640	11.5	6.8	1,691	41.12	82.91	58.21	1,859
17	Birch	.520	8.0	5.3	1,509	52.16	86.12	66.04	1,188
18	Lime	.400	9.1	5.5	1,655	63.20	89.32	73.88	0,896
19	Aspen	.410	8.5	4.9	1.735	62.28	89.05	73.23	.971
20	Willow	0,380	6.6	3.2	2.063	65.04	89.85	75.19	1.042
21	Pear	.585	9.1	4.6	1.978	46.18	84.38	61.80	1.873
22	Maple	.570	8.4	5.2	1.615	47.56	84.78	62.78	1.467
23	Poplar	0,375	8.2	5.2	1.577	65.50	89.99	75.51	.783
24	Cedar	0.350	7.7	4.0	1,925	67.80	90.66	77.15	0.873
25	Acacia	.650	8.4	4.3	1.953	40.20	82.65	57.56	2,206

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BROUGHT Variant Classification of major complexity of industrial rocks on drying. Opredelyayuschymy factors javljajutsja Base (uslovnaya) density, porosity, Attitude usыhanyya values in plain radial *direction for about A fibers. Drevesnыe porodы razdelenы by rating for two class "A" and "B".*

Density, humidity, drevesnыe porodы, rating, vlahoprovodymost, drying, usыhanye, porosity, serdtsevyunnыe rays, makroporы.

The version of the classification of the major industrial species of wood on complication of drying has been shown. The determinative factors are as follows: basic (conditional) density, porosity, ratio of tangential and radial shrinkage in relation to fibres. Wood species have been rated into two classes "A" and "B".

Density, moisture content, tree species, rating, moisture conductivity, drying shrinkage, porosity, medullary rays macropores.

UDC 674,047

INFLUENCE abnormally STRUKTURYNA drying of wood: maple

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According to experimental results, the effect of abnormal patterns maple wood in its physical properties: density and shrinkage in different directions relative to the fibers. Conducted statistical analysis showed high accuracy of the results.

Wood structure. density, shrinkage, pryamovoloknysta, wavy-structure cross-grained maple, bird's eye.

In forest stands of Western Ukraine (mostly in the Ukrainian Carpathians) there are some individuals maple (Acer Pseudoplantanus ls.) With abnormal wood. Phenotype at xylem maple isolated form "bird's eye", characterized by a special decorative and maple wood with wavy zavylkuvatistyu having distinct waviness and characterized by special resonance parameters. In maple with

pryamovoloknystoyu structure width strips of shiny ray parenchyma on the radial sections is 1 mm, And the wavy-cross-grained wood is thicker