

direction for about A fibers. Drevesnye porody razdeleny by rating for two class "A" and "B".

Density, humidity, drevesnye porody, rating, vlahoprovodymost, drying, usyhanuye, porosity, serdtsevynnye rays, makropory.

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 STRUKTURYNА drying of wood: maple

PV Biley, PhD

IS Vintoniv, Ph.D.

**PP Biley, a graduate student National
Forestry University of Ukraine**

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 Pseudoplatanus ls.) With abnormal wood. Phenotype at xylem maple isolated form "bird's eye", characterized by a special decorative and maple wood with wavy zavylykuvatistyyu having distinct waviness and characterized by special resonance parameters. In maple with

© PV White, IS Vinton, PP White, 2013

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

rays clearly visible at all intersections (width in the radial plane to 1.5mm and more) [1].

In mature maple trunks age (100 years or more) often formed the core of genuine dark color that is different from the physical quality white maple wood with pyramovoloknystoyu structure.

Research results pyramovoloknystoyi complete drying of wood within a trunk maple wood are given in Table. 1.

1. Characteristics complete drying pyramovoloknystoyi maple wood.

Model tree	The cut at the height of the trunk, m	M	$\pm m$	V, %	P, %
in plain direction					
1	1.3	8.80	.2313	11.5	2.6
	7.0	8.87	.2342	11.5	2.6
	10.0	9.86	.3057	13.5	3.1
2	1.3	8.92	.5360	26.2	6.0
	8.0	9.81	.5303	23.6	5.4
	12.0	9,67	.1679	7.6	1.7
	Mean	9,32	.3342	15.6	3.6
radially					
1	1.3	4.02	.0953	10.3	2.4
	7.0	5.20	.0953	8.0	1.8
	10.0	5.62	.0531	4.1	0.9
2	1.3	4.16	.1276	13.4	3.1
	8.0	6.39	.3057	20.9	4.8
	12.0	4.97	.1489	13.0	3.0
	Mean	5.06	.1377	11.9	2.7
Surround					
1	1.3	13.3	.7501	24.7	5.7
	7.0	13.4	.2876	9.3	2.1
	10.0	17.0	.4151	10.6	2.4
2	1.3	11.9	.2678	9.8	2.3
	8.0	15.5	.7134	20.1	4.6
	12.0	14.8	.2466	7.3	1.7
	Mean	14.3	.4468	13.6	3.1

In the notation adopted: M - mean value, m - standard deviation; V - coefficient of variation; P - accuracy ratio.

Results of the study complete drying pyramovoloknystoyi maple wood (Table. 1) show that the wood at 10 meter height trunk (1 m down from the crown) is characterized by a plain in the direction of shrinkage (9.86%) of the shrinkage in height 1.3 m (8.8%). This trend is common to all the main structural trends.

Odds maple wood drying pryamovoloknystoyi within the barrel are shown in Table. 2.

2. Factors pryamovoloknystoyi drying wood maple.

Model tree	The cut at the height of the trunk, m	M	±m	V,%	P,%
		in plain direction			
3	1.3	.262	0,012	20.4	3.26
	7.0	.247	0,008	23.4	3.2
	10.0	0.255	0.01	24.4	3.92
		radially			
3	1.3	.247	0,008	23.4	3.2
	7.0	.151	0,007	23.2	4.66
	10.0	.175	0,006	21.2	3.42
		Surround			
3	1.3	.482	0,014	15.25	2.92
	7.0	0.40	0,009	16,20	2.25
	10.0	.474	0,014	13.62	3.07

Coefficient maple wood drying pryamovoloknystoyi (tab. 2) from the middle of the barrel (height 7.0 m) Are characterized by a smaller size that should be considered in industrial processes resonance cultivation of raw materials.

Shrinkage factor maple wood form "bird's eye" given in Table. 3.

3. Ratio drying maple wood form "bird's eye".

Model tree	The cut at the height of the trunk, m	M	±m	V,%	P,%
		in plain direction			
4	1.3	.232	.0019	24.8	0.79
		radially			
4	1.3	0.128	.0018	30.06	1.42
		Surround			
4	1.3	.381	0,012	16.30	3.16

Odds drying maple wood form "bird's eye" (tab. 3) is much smaller (by volume - 0.381) compared to pryamovoloknystoyu maple wood (0.452) [2, 3]. This feature is associated with abnormal shape structure sycamore "bird's eye" which increases longitudinal shrinkage and reduced shrinkage anizotropnist cross. Coefficient of drying wood with fake maple core shown in Table. 4.

4. Average performance coefficient of shrinkage of wood with fake maple core.

Model tree	The cut at the height of the trunk, m	M	±m	V,%	P,%
		in plain direction			
5		.268	0,006	22.4	2.24
		radially			
5		.170	0,004	24.1	2.35
		Surround			
5		.472	0.0075	15.9	3.57

Comparative characteristics of maple wood pryamovoloknystoyu structure and wavy-cross-grained shown in Table. 5.

5. Comparative characteristics of maple wood pryamovoloknystoyu structure and wavy-cross-grained.

Indicator	Sycamore	
	pryamovoloknystyy	wavy-cross-grained
1. Content of late wood rings,%	19.2	18.7
2. The number of annual rings in 1 cm, Units	4.7	4.0
3. Complete linear shrinkage,%:		
- Plain	9,32	8.20
- Radial	5.06	4.39
- Volume	14.3	13.3
4. Density g / cm ³		
- Basic	509	480
- In abs.suh.stani	594	576

Conclusion. Differences in the quality characteristics of maple wood pryamovoloknystoyu structure and wavy-cross-grained found on all counts. Yavor pryamovoloknystoyu of wood has a higher density and content zone late, so the value of shrinkage is greater than its wavy-cross-grained form.

References

1. Vinton IS Derevnyznastvo. Tutorial: 2nd ed., Complement. / Vinton IS, IN Sopushynskyy, Tayshinher AM - Lviv: A priori, 2007. - 312 p.
2. Vyntonyv Y.S. Effect uslovyy growth on physicochemical properties of wood maple mehanycheskye proyzrostayuscheho Carpathians / Y.S. Vyntonyv // Izv. universities. Lesna. magazine. - 1973. - №5. - P. 154-155.
3. Vyntonyv Y.S. Some physicochemical properties mehanycheskye svylevatoy maple timber / Vyntonyv Y.S. // Izv. universities. Lesna. magazine. - 1981. - №6. - P. 56-58.

The results of research eksperymentalnyh been detected Effect anomalnoy structure in poplar timber ego fyzycheskye properties: density

and *usyhanyya* a direction about A DIFFERENT fibers. *Provedënnaya statystycheskaya Monitor* showed *высокую полученный accuracy* of results.

Timber structure, density, *usyhanye*, *pryamovoloknystaya*, *volnysto-svylevatoe stroenye poplar*, *Ptich eye*.

According to experimental results, the effect of anomalous structure of sycamore wood on its physical properties: density and shrinkage in different directions relatively to the fibers has been exposed. Statistical analysis showed the high accuracy of the results was conducted.

Wood structure, density, shrinkage, straight-grained, cross-grained wavy-structure sycamore, bird's eye.

UDC 674.81

DISCUSS METHODOLOGICAL ASPECTS OF RESEARCH TECHNOLOGY OF WOOD COMPONENTS BY CRUSHING

**AS Malakhov, Ph.D.
YP Lakyda, competitor ***

The influence of the characteristics of the wood component on the properties of composite materials. These stages of the manufacturing process monoderevu. The results of the test experiment for the production of wood crushing tonkomirnoyi component materials.

Wood composites, wood fiber, monoderev, crushing tonkomirnoyi wood.

*Supervisor - PhD OO Pinchevska

© AS Malakhov, JP Lakyda, 2013

Current nowadays problem of rational use of raw materials in the wood industry to some extent solved using low-quality wood as filler in the manufacture of composite materials.

Among these materials - plates *derevynnostruzhkovi* (DStP) and *derevynnovoloknysti* (DVP and MDF), OSV materials "Ultraspen", "Structureframe", parkelit etc. [1, 4]. The difference between these materials is the difference technological factors on the stages of the process, which in principle common to them, making the tree component, causing binding and pressing [1].

On the basis of the existing range of wood composite materials can be concluded that the main difference between them is the different structure which is largely due to various parameters of wood particles: