

**Rough lumber of coniferous species.**  
**Interpretation of Russian export grading rules in accordance to GOST 26002-83**

**1. Dimensions:**

1.1 Sawn lumber is subdivided:

By thickness:	Thin	16 - 22 mm
	Medium	25 - 44 mm
	Thick	50 - 100 mm
By width:	Narrow	75 - 125 mm
	Wide	150 mm and wider
By length:	Short	450 - 2400 mm
	Long	2700 - 6300 mm

1.2. Nominal thickness and width are guided by standard GOST 24454-80, where thickness of the lumber shall not exceed 100 mm.

1.3. Lengths of lumber are ranged:

from 1500 mm and up with a step of 300 mm;

from 450 mm up to 1350 mm with a step of 150 mm;

Lumber with length from 450 mm up to 1350 mm is manufactured by an order of State foreign trade organization.

1.4. Nominal dimensions of lumber are established for the wood of MC (moisture content) 20%. With MC of more or less than 20%, actual thickness and width of lumber shall be more or less than nominal dimensions in correlation with shrinkage value according to standard GOST 6782.1-75.

1.5. Limiting deviations from nominal dimensions of lumber shall not exceed in mm:

By length	+ 25	- 12
By width	+ 3	- 2
By thickness:		
thickness less than 50 mm	+ 2	- 1
thickness 50 mm und up	+ 3	- 2

Volume of lumber with maximum admitted deviations shall not exceed 25% of total volume of lumber.

**2. Technical Requirements**

2.1. Lumber shall be manufactured in accordance to the requirements of the present technology standard for the wood of Pine, Spruce, Fir and Larch species.

2.2. Lumber is subdivided by quality of the wood and by its machining into 1, 2, 3, 4 and 5 grades.

2.3. Lumber is arranged:

By dimensions;

By species;

By grades:

**U/S** Unsorted (combining 1, 2, 3 grades together, the percentage correlation of which shall correspond to the natural recovery of lumber while sawing);

**4** grade separately;

**5** grade separately;

Up to 15% of Fir is admitted in a load of Spruce lumber.

2.4. MC moisture content of lumber shall not exceed 22%. Variation of the moisture content is admitted by custom orders.

2.5. Antiseptic treatment of lumber is per standard GOST 10950-78.

2.6. Quality of the wood and manufacture of lumber shall correspond to the requirements specified in tables 1-3.

**Pine and Larch Lumber**

**Table 1**

Wood defects	Limiting norms of wood defects by grades										
	1 grade		2 grade		3 grade		4 grade		5 grade		
	size	number	size	number	size	number	size	number	size	number	
1. Knots 1.1. Intergrown knots 1.1.1. Round and Oval 1.1.1.1. Face	Admitted on outside face in dimensions in mm and number in pieces on average per 1000 mm of length of lumber.										
	In thick wide sawn lumber										
	13-17	1	18-27	1	28-38	2	Admitted				
					over 38 up to 50	1					
	In thick narrow lumber										
	10-14	1	15-24	1	25	2	Admitted				
					over 25 up to 38	2					
	In medium wide lumber										
	10-14	1	15-18	1	19-25	3	Admitted				
					over 25 up to 38	1					
	In medium narrow lumber										
	10-14	1	15-18	1	19-25	3	Admitted				
					over 25 up to 32	1					
	In thin lumber										
	10-14	1	15-18	1	19-22	2	Admitted				
					over 22 up to 32	1					
	In lumber of 75 mm wide knots shall not exceed:										
	1/4		1/3		1/2		2/3		Admitted		
	of face width										
	Number of knots on the inside face of lumber of 1 & 2 grades is admitted twice more and in 3 grade one and a half times more than for outside face.										
1.1.1.2. Edge & corner	Admitted on each edge with dimensions in mm and number in pieces for entire length of a piece:										
	In thick lumber:										
	up to 6	3-4	7-12	3-5	13-16	5-8	Admitted				
			13-19	3-5		over 16 up to 25					3-5
											over 25 up to 32
	In medium lumber:										
	up to 6	2-3	7-12	2-4	13-16	2-4	Admitted				
			13-19	2-3		over 16 up to 3/4 of thickness					2-4
	In thin lumber:										

	up to 6	1-2	7-10	1-2	up to 2/3 of thickness	2	Admitted						
1.1.1.3. End	Admitted on each end with dimensions in mm and number in pieces:												
	Not admitted				25	1	Admitted						
1.1.2. Spike, branchy including appeared on corners, and edge	Admitted on the inside face of sawn timber (lumber) in total number of intergrown round and oval knots with dimensions and amount as per paragraphs 1.1.1.1.; 1.1.1.2.												
	Dimension of knots in mm by maximum diameter is admitted of not more than:												
	38		50		admitted								
	Appearing of knots on edges:												
	Admitted with appearing on edge of not more than:												
	Not admitted		1/4 of the thickness		1/3 of the thickness		Admitted						
Wood defects	Limiting norms of wood defects by grades												
	1 grade		2 grade		3 grade		4 grade		5 grade				
	size	number	size	number	size	number	size	number	size	number			
1.2. Encased sound, unsound, decayed, rotten 1.2.1. Face	Admitted on the outside face within the amount of intergrown sound knots with dimensions in mm and number in pieces in average per 1000 mm of the length of lumber:												
	In thick wide sawn timber lumber												
	Not admitted				25	1	63	1	Admitted Knot holes shall not exceed 32 mm in narrow and 38 mm in wide sawn timber (lumber)				
					Through the board unsound, decayed and rotten								
					Not admitted		25	1					
	In thick narrow lumber												
	Not admitted				19	1	50	1					
					Through the board unsound, decayed and rotten								
					Not admitted		25	1					
	In medium wide lumber												
	Not admitted				19	1	50	1					
					Through the board unsound, decayed and rotten								
					Not admitted		19	1					
	In medium narrow lumber												
	Not admitted				13	1	38	1					
					Through the board unsound, decayed and rotten								
					Not admitted		19	1					
In thin lumber													
Not admitted				Only sound									
				13	1	38	1						
						Through the board unsound, decayed and rotten							
						19	1						
In lumber of 75 mm wide of all thickness the knot's sizes shall not exceed:													
Not admitted				1/3		1/2		2/3					
				Of width of face									
1.2.2. Edge and corner, including knot holes	Admitted on each edge with dimensions in mm and by number in pieces on the entire length of lumber.												
	In thick lumber												

	Not admitted		13	1-2	38	2-4	Admitted					
	In medium lumber											
	Sound only											
	Not admitted		10	1-2	32	2-4	Admitted					
	In thin lumber											
	Sound only											
	Not admitted		6	1-2	25	2-4	Admitted					
	Knot holes not more than:											
	Not admitted				Admitted with depth not more than:			Admitted				
					In thick - 1/4		thickness of lumber with showing on outside face not more than 2,0 mm		Admitted			
					In medium - 1/3							
					In thin - 1/2							
	Of thickness of lumber											
Wood defects	Limiting norms of wood defects by grades											
	1 grade		2 grade		3 grade		4 grade		5 grade			
	size	number	size	number	size	number	size	number	size	number		
1.2.3. End	Not admitted					Admitted						
2. Checks 2.1. Side checks 2.1.1. Face checks 2.1.1.1. Non through	Admitted with extent of not more than:				1/3		1/2		2/3		Admitted by conditions of integrity of lumber	
					Of the length of lumber							
					Without appearing on ends and edges				With appearing on one end up to 1/3 of thickness without exiting from end to edge.			
2.1.1.2. Through 2.1.1.2.1. Through without appearing on the end, including ring shakes	Not admitted		Admitted without exiting on edges from outside and inside faces with length of not more than:				Admitted by conditions of integrity of lumber					
			In thick lumber		1/5 (1/2)						1/3 (2/3)	
			Of the length of a piece									
			In medium lumber		1/10 (1/4)						1/5 (1/3)	
			Of the length of lumber									
	In thin lumber											
	Not admitted											
Note:	Check sizes, shown without brackets, relate to outside face; those in brackets relate to inside face.											
2.1.1.2.2. Through appearing on end	Admitted with extension from each end of not more than, mm:											
	30		40		50		Width of lumber		600			
2.1.2. Edge checks	Admitted:											
	Shallow, length not more than 40 mm				Not crossing corners of edge		Admitted					
Wood defects	Limiting norms of wood defects by grades											
	1 grade		2 grade		3 grade		4 grade		5 grade			

	size	number	size	number	size	number	size	number	size	number	
2.2. End checks	..										
2.2.1. Heart checks	Heart checks		Admitted in thick lumber on one end with length extent not more than 1/2 of width of a piece			Admitted					
2.2.2. Ring shakes	Not admitted		Admitted with diameter of not more than, mm: In lumber with width  25 to 44mm – 10 45 to 63mm – 19 above 63mm – 25			Admitted by conditions of integrity of lumber					
3. Defects of wood structure	.										
3.1. Slope of grain	Admitted, if grain deviation from straight direction per 300 mm of length of lumber compose not more than, mm:					Admitted					
	10		19		25						
3.2. Compression wood	Admitted without splits on ends					Admitted					
3.3. Pitch pockets	On faces					Admitted					
	In thick lumber										
	Admitted non through with width not more than, mm:										
	3		3		6						
	With length up to, mm:										
	75		100		200						
	On each face in amount in pieces of not more than:										
	2-3		4-6		8						
	In medium and thin lumber										
	Admitted non through with width not more than, mm:										
	3		3		6						
	With length up to, mm:										
	25		75		125						
	On each face in amount in pieces of not more than:										
	2-3		3-4		5						
	Without appearing on edges and ends					-					
Note:	Indicated amount of pitch pockets is admitted in less numbers on outside face and more numbers on inside face.										
	On edges					Admitted					
	Admitted										
	Not admitted	1/2 of norm for outside face		Width up to 3 mm; length up to 100 mm in amount up to 4 pieces on each edge							
	On ends										
	Not admitted			Admitted in medium and thin lumber with width up to 3 mm and length up to 1/3 of width of lumber							

Wood defects	Limiting norms of wood defects by grades									
	1 grade		2 grade		3 grade		4 grade		5 grade	
	size	number	size	number	size	number	size	number	size	number
3.4. Pith	Admitted in lumber of over 25 mm thick (without ring shakes and checks)				Admitted		Admitted			
	With extent up to 1/2 of length of lumber appearing on one end at distance not more than 1/6 of thickness of timber from inside face.		With extent of total length of lumber appearing on one end at distance not more than 1/4 of thickness from inside face.							
	Admitted in lumber of 25 mm thick and thinner									
	Not admitted				Admitted attached to inside face with appearing on outside face.		Admitted			
Note:	In a load of lumber of 3 grade not more than 30% of boxed heart is admitted									
3.5. In bark (Bark pockets)	Not admitted				Admitted on faces non through not more than 25 mm wide in amount of 1 piece up to 75 mm long and up to 3 pieces with length up to 50 mm; On edges 2 pieces up to 2 mm wide, not more than 15 mm long; not admitted on ends.		Admitted up to 50 mm wide; In thick lumber on one face with no limit length. In medium and thin lumber up to 175 mm long.		Admitted	
3.6. Pitch & Pitch Streaks	Not admitted		Admitted on faces and edges in form of spots and streaks				Admitted			
4. Fungal defects										
4.1. Fungal heartwood stains (streaks)	Not admitted				Admitted in thick lumber on face or edge without appearing on ends up to 1/5 of width and length of a piece. Not admitted in medium and thin lumber		Admitted on faces and edges up to 1/2 of width and length of lumber, admitted showing on end with covering of not more than 10% of end's area.		Admitted	
4.2. Light fungal sap stains and mold										

4.2.1. Surface	Not admitted	Admitted on faces and edges up to 2 mm deep in shape of spots and streaks with total area of covering of not more than 15% of area of one face.	Admitted on faces and edges in shape of spots and steaks.	Admitted						
4.2.2. Deep	Not admitted	Admitted on faces and edges up to 2 mm deep in shape of spots and streaks with total area of covering of not more than 5% of area of one face.	Admitted on faces and edges up to 2 mm deep in shape of spots and streaks with total area of covering of not more than 50% of area of one face and edges. With covering of not more than 10% of end area.	Admitted						
Note:	Volume of lumber with maximum admitted norm of deep fungal sap stains in a batch of 4 grade shall not exceed 25%.									
Wood defects	Limiting norms of wood defects by grades									
	1 grade		2 grade		3 grade		4 grade		5 grade	
	size	number	size	number	size	number	size	number	size	number
4.3. Decay										
4.3.1. Sap Decay										
4.3.1.1. Firm	Not admitted	In thick lumber is admitted on face or edge up to 1/5 of width and length without appearing on ends. Not admitted in medium and thin lumber	Admitted on faces and edges up to 1/2 of width and length of lumber without appearing on end.	Admitted						
4.3.1.2. Soft	Not admitted									
4.3.2. Heart Decay	Not admitted								Brown checked not admitted. Firm mottle honeycomb is admitted appearing on all sides in shape of streaks covering not more than 50% area of one face. Decay shall not cover more than 20% of and area.	
4.3.3. External rot	Not admitted									
5. Insect damages										
5.1. Wormholes	Not admitted								External is admitted, caused by bark beetles	



## Spruce and Fir Lumber

**Table 2**

Wood defects	Limiting norms of wood defects by grades																		
	1 grade		2 grade		3 grade		4 grade		5 grade										
	size	number	size	number	size	number	size	number	size	number									
1. Knots	Admitted on outside face in dimensions in mm and amount in pieces on average per 1000 mm of lumber length.																		
1.1. Intergrown knots																			
1.1.1. Round & Oval																			
1.1.1.1. Face																			
In thick lumber																			
13											3	19-25	3	Admitted		Admitted			
Over 13 up to 19											1	Over 25 up to 38	2	70-75	1-2 on entire length				
Over 19 up to 25											1	Over 38 up to 50	1-2 on entire length						
											With absence of unsound, decayed, rotten knots	With absence of enlisted unsound, decayed, rotten knots							
In medium lumber																			
13	2	19-25	2	38-50	1	Admitted													
Over 13 up to 19	1	Over 25 up to 37	1	(over 50 up to 63)	1 – 2 on entire length														
		With absence of unsound, decayed, rotten knots																	
In thin lumber																			
13-18	1	19-31	1-2	32	3	Admitted													
				(over 32 up to 38)	1														
				With absence of unsound, decayed, rotten knots															
In lumber of 75 mm wide of all thickness size of knots shall not exceed:																			
1/3 of face width		1/3 of face width		1/2 of face width		2/3 of face width		Admitted											
Note:	1. Knots, dimensions of which are shown in brackets, admitted among recorded knots of smaller dimensions. 2. Quantity of knots on inside face is admitted: in 1 grade – double, in 2 grade – one and a half, in 3 grade – one time correspondently to norm for outside face.																		
Wood defects	Limiting norms of wood defects by grades																		
	1 grade		2 grade		3 grade		4 grade		5 grade										
	size	number	size	number	size	number	size	number	size	number									
1.1.1.2. Edge & Corner	Admitted on each edge with dimensions in mm and number in pieces for entire length of lumber:																		
In thick lumber:																			

	Up to 13	8	19-43	3-6	44-50	1-3	Admitted			
	Over 13 up to 16	4								
	Over 16 up to 18	1-3								
	In medium lumber									
	up to 13	2-3	From 14 up to 2/3 of thickness of timber	2-3	From 19 up to 3/4 of thickness of timber	3-5	Admitted			
	In thin lumber									
Up to 6	2-3	From 7 up to 12	1-2	From 13 up to thickness of timber	2-4	Admitted				
1.1.1.3. End	Admitted with dimensions in mm and number in pieces:									
On one end 1 knot up to 25	On both ends 1 knot up to 25	25	1	Admitted						
		On each end								
1.1.2. Spike, branchy including appeared on corners, and edge knots	Admitted on the inside face of sawn timber (lumber) in total number of intergrown round and oval knots with dimensions and amount as per paragraphs 1.1.1.1.; 1.1.1.2. In sawn timber of 1 grade largest diameter of branchy knot shall not exceed 50 mm and it shall not cover more than 1/4 of thickness of an edge.									
1.2. Encased sound, unsound, decaying, rotten	Admitted on each face within the amount of intergrown sound knots with dimensions in mm and number in pieces for the entire length of lumber:									
1.2.1. Face	In thick lumber									
Not admitted	Up to 30	3-6	Over 30 up to 50	3-6	Admitted	Admitted. Knot holes shall not exceed 32 mm in narrow and 38 mm in wide lumber				
Through the board unsound, decayed and rotten							Admitted			
Not admitted					Up to 38	Admitted				
In medium lumber										
Not admitted	Up to 20	2-4	Over 20 up to 25	2-4	Admitted					
Through the board unsound, decayed and rotten							Admitted			
Not admitted					Up to 25	Admitted				
In thin lumber										
Not admitted	Up to 16	1-3	Over 16 up to 22	1-3	Admitted					
Through the board unsound, decayed and rotten							Admitted			
Not admitted					Up to 25	Admitted				
In lumber with width of 75 mm and any thickness, dimension of knots shall not exceed:										
Not admitted			1/3 of the face width	1/2 of the face width	Admitted					
Wood defects	Limiting norms of wood defects by grades									
	1 grade		2 grade		3 grade		4 grade		5 grade	
	size	number	size	number	size	number	size	number	size	number

1.2.2. Edge and corner, including knot holes	Admitted on each edge with dimensions in mm and number in pieces on the entire length of lumber																	
	In thick lumber																	
	Not admitted	Up to 15	1-2	16-25	2-4	Admitted												
	In medium lumber																	
	Not Admitted		13-19	1-3	Admitted													
	In thin lumber																	
	Not admitted		6-10	1-2	Admitted													
	Knot holes on edges																	
Not admitted			Admitted covering up to:		Admitted													
		2/3 of thickness of lumber	Entire thickness of lumber with appearing on outside face in extent of 2 mm															
1.2.3. End	Not admitted				Admitted													
2. Checks	Admitted by conditions of integrity of lumber																	
2.1. Side Checks							Admitted with extent of not more than:											
2.1.1. Face													of the length of lumber					
2.1.1.1. Non through																		
	1/3	2/3	3/4	with appearing on one end up to 1/2 of thickness without exiting from end to edge.														
2.1.1.2. Trough	Not admitted	Admitted on outside face and for ring shakes on inside face with length of not more than:			Admitted by conditions of integrity of lumber													
2.1.1.2.1. Through without appearing on the end, including ring shakes		1/4	1/3															
		Of the length of lumber																
2.1.1.2.2. Through appearing on end	Admitted with extension from each end of not more than, mm:																	
	50	75	100	Width of a piece	600													
2.1.2. Edge checks	Admitted, mm:																	
	Shallow, length not more than 75 mm		Not crossing corners of edge		Admitted													
2.2. End checks	Admitted by conditions of integrity of lumber																	
2.2.1. Heart checks							Not admitted		Admitted in thick sawn timber on one end with length extent not more than 3/4 of width of a piece									
2.2.2. Ring shakes	Not admitted		Admitted with diameter of not more than, mm: In sawn timber with width:		Admitted by conditions of integrity of lumber													

		25 to 44mm – 10 45 to 63mm – 19 above 63mm – 25								
Wood defects	Limiting norms of wood defects by grades									
	1 grade		2 grade		3 grade		4 grade		5 grade	
	size	number	size	number	size	number	size	number	size	number
3. Defects of wood structure										
3.1. Slope of grain	Admitted, if grain deviation from straight direction per 300 mm of piece's length compose not more than, mm:						Admitted			
	13		25		38					
3.2 Compression wood	Admitted without splits on ends						Admitted			
3.3 Pitch pockets	On faces									
	Admitted on each face without appearing on edges and ends with width up to 3 mm and length not more than, mm:				Admitted not through up to 6 mm wide and up to 200 mm long in amount of 10 pcs. on each face		Admitted			
	75		150							
	In amount of not more than, pcs:									
	3		5							
	On edges									
	Admitted with dimensions and numbers not exceeding 1/2 of those stipulated for the face.						Admitted			
	On ends									
	Not admitted				Admitted in medium and thick sawn timber with width up to 3 mm and length up to 1/3 of width of lumber		Admitted			
3.4. Pith	In lumber of less than 22 mm thick:									
	Not admitted						Admitted			
	In lumber of over 22 mm and up to 44 mm thick:									
	Admitted with extend of entire length of lumber with appearing on one or both ends not far from inside face than:						Admitted			
	1/4		1/3		1/3					
	Of thickness of lumber without checks and shakes in 1 and 2 grades.									
	In lumber of over than 44 mm thick:									
	Admitted with extend of entire length of lumber far from inside face not less than 1/4 of thickness of lumber				Admitted					
Note:	In a load of sawn timber of 3 grade not more than 30% of boxed heart is admitted									
3.5. In bark (bark pockets)	Not admitted				Admitted on faces non through in amount up to 4 pcs in lumber with thickness of 55 mm and up: 125 mm long and		Admitted			

			25 mm wide; in lumber with thickness of less than 55 mm: 63 mm long and 15 mm wide; On edges 2 pieces up to 2 mm wide, not more than 20 mm long;							
3.6. Pitch & Pitch Streaks	Not admitted	Admitted on faces and edges in form of spots and streaks			Admitted					
Wood defects	Limiting norms of wood defects by grades									
	1 grade		2 grade		3 grade		4 grade		5 grade	
	size	number	size	number	size	number	size	number	size	number
4. Fungal defects 4.1. Fungal heartwood stains (streaks)	Not admitted			Admitted on face or edge up to 1/4 of width and length of lumber		Admitted on faces and edges up to 1/2 of width and length of lumber, admitted showing on end with covering of not more than 10% of end's area.		Admitted		
4.2. Light fungal sap stains and mold 4.2.1. Surface	Not admitted			Admitted on faces and edges up to 2 mm deep in shape of spots and streaks with total area of covering of not more than 15% of area of one face		Admitted on faces and edges in shape of spots and steaks. Covering of not more than 10% of end's area		Admitted		
4.2.2. Deep	Not admitted			Admitted on faces and edges in shape of spots and streaks with total area of covering of not more than 5% of area of one face.		Admitted on faces and edges in shape of spots and streaks with total area of covering of not more than 50% of area of one face and edges. With covering of not more than 10% of end's area.		Admitted		
Note:	Volume of lumber with maximum admitted norm of deep fungal sap stains in a batch of 4 grade shall not exceed 25%.									
4.3. Decay 4.3.1. Sap decay 4.3.1.1. Firm	Not admitted			Admitted on face or edge up to 1/4 of width and length of lumber		Admitted on faces and edges up to 1/2 of width and length of lumber without appearing on ends		Admitted		
4.3.1.2. Soft	Not admitted									
4.3.2. Heart Decay	Not admitted			Admitted firm non through with		Admitted firm on one face with		Brown checked not admitted.		

		dimensions up to 1/5 of width and length of lumber without appearing on ends	dimensions up to 1/4 of width and 1/3 of length of lumber, slightly exiting on another face and edges	Firm mottle honeycomb is admitted appearing on all sides in shape of streaks covering not more than 50% area of one face. Decay shall not cover more than 25% of end's area
4.3.3. External rot	Not admitted			
5. Insect damages 5.1. Wormholes	Not admitted			External is admitted, caused by bark beetles
Note: Table 1 & 2	<p>1. Amount of knots for entire length of lumber, shown "from – to" means that less amount is admitted for short lumber and more – for long.</p> <p>2. Knots with less dimensions than indicated are disregarded.</p> <p>3. Intergrown knots could be knots fully intrgrown on one face and fully incased on another face or edge.</p> <p>4. In U/S (1-3 grades together) lumber, simultaneous presence of incased knots, checks and fungus sapwood stains with maximum limits are not admitted.</p> <p>5. With absence of other limiting defects one defect is admitted exceeding 20% of parameters, except for blue stain and checks.</p>			

**Table 3**

Wood defects	Limiting norms of wood defects by grades									
	1 grade		2 grade		3 grade		4 grade		5 grade	
	size	number	size	number	size	number	size	number	size	number
1. Manufacturing defects										
1.1. Wane										
1.1.1. Obtuse	Admitted on one edge with extension of not more than:						Admitted on both edges extended not more than 2/3 of the length of lumber		Admitted on both edges extended on entire length with covering of not more than 2/3 of thickness and width of lumber	
	1/5		1/4		1/3					
	Of the length of the lumber									
	On both edges:									
	1/10		1/5		1/4					
	Of the length of the lumber									
	Width of wane, calculated by maximum value of miss sawn part in mm, is admitted of not more than:									
	In lumber with thickness up to 25 mm:									
	1/4		1/3		1/2		2/3			
	Of thickness of lumber									
	In lumber with thickness over 25 mm:									
	1/5		1/4		1/3		2/3			
	Of thickness of lumber						Wane admitted on condition that sawn part of edge shall be not less than 1/2 of thickness of lumber			
1.1.2. Sharp	Not admitted								Admitted on one edge not more than 1/10 of length of lumber provided that nominal width of inside face shall be maintained	
Note:	The wane shall be free of bark and inner bark, in lumber of 5 grade inner bark may be present									
1.2. Saw marks	The depth of saw teeth marks shall not exceed 0,75 mm									
1.3. Fringe	Not admitted									
1.4. Bevel cut	Declinations from perpendicularity of end to face and to edge are admitted up to 3% of width and thickness of lumber correspondently.									
1.5. Chipping	Chipping due to mechanical damages, saw kerfs, knife marks caused by debarking machines on edge corners next to inside face are not admitted; on edge corners next to outside face are admitted correspondently to wane limitations.									
1.6. Waving	The height of wave shall not exceed 0,75 mm									
1.7. Torn grain	On faces									
	Admitted not more than 0,75 mm deep without number limitations						Admitted up to 3 mm deep without number limitations		Admitted	
	On edges									
	Admitted not more than 3 mm deep without number limitations						Admitted not more than 5 mm deep without number limitations		Admitted	

Note:	Limits for waving and torn grain are indicated only for lumber recovered on "chip and saw" equipment										
1.8. Foreign particles (nails, wire, metal debris and etc.)	Not admitted										
Wood defects	Limiting norms of wood defects by grades										
	1 grade		2 grade		3 grade		4 grade		5 grade		
	size	number	size	number	size	number	size	number	size	number	
2. Warping											
2.1. Crook	Admitted with deflection of not more than, %										
	0,10		0,10		0,15		0,20		admitted		
	Of the length of lumber										
Note:	1. Volume of lumber with admitted crook warp shall not exceed 20% of the total volume of the said grade. 2. Values for crook warp for lumber of different length are given in reference Annex										
2.2. Bow	Admitted with deflection per each 1500 mm of the length of lumber of not more than, mm:									Admitted	
	2		4		6		13				
2.3. Cup	Admitted with deflection of not more than, mm:									Admitted	
	For wide lumber										
	3		3		6		10				
	For narrow lumber										
2.4. Twist	Admitted with deflection from sawing plain not more than 13 mm for entire length of lumber									Admitted	
Note:	Volume of lumber with crook, bow and twist, provided p. 2.2-2.4 shall not exceed in U/S grade - 10%, in 4 grade – 20% of total volume.										

### 3. Acceptance Rules and Methods of Control

#### 3.1. Acceptance rules and methods of control – as per GOST 6564-84

3.2. Sizes of knots are determined by the smallest diameter. Measurement of spike, branchy including appeared on corners and edge knots shall be taken on corner of lumber. Their size to be accepted as per the norms of admitted knots on edges. Their depth of covering of edge shall be measured by the distance between corner and tangent placed parallel to the corner.



**Values of crook warping for lumber by length and grades:**

Length of lumber in mm	Crook warping by grades			
	Unsorted (U/S)		4 grade	
	%	mm	%	mm
1500	0,15	2,2	0,2	3,0
1800	0,15	2,7	0,2	3,6
2100	0,15	3,2	0,2	4,2
2400	0,15	3,6	0,2	4,8
2700	0,15	4,0	0,2	5,4
3000	0,15	4,5	0,2	6,0
3300	0,15	5,0	0,2	6,6
3600	0,15	5,4	0,2	7,2
3900	0,15	5,8	0,2	7,8
4200	0,15	6,3	0,2	8,4
4500	0,15	6,8	0,2	9,0
4800	0,15	7,2	0,2	9,6
5100	0,15	7,6	0,2	10,2
5400	0,15	8,1	0,2	10,8
5700	0,15	8,6	0,2	11,4
6000	0,15	9,0	0,2	12,0
6300	0,15	9,4	0,2	12,6
6600	0,15	9,9	0,2	13,2
6900	0,15	10,4	0,2	13,8
7200	0,15	10,8	0,2	14,4
7500	0,15	11,2	0,2	15,0