

Wood and manufacture defects limitation norms for outer layers

WOOD AND MANUFACTURING DEFECTS	B+	B	S	BBx	BB	CP	CPW	WGE	WG	C	CC
1. Pin knots	permitted										
2. Live sound knots (light and dark)	permitted light up to 15 mm diameter with crack width up to 0.5 mm, 5 per m ²	permitted diameter up to 15 mm with crack up to 0,5 mm, up to 5 per m ²	permitted diameter up to 25 mm with crack up to 1 mm., 10 per m ²	allowable with crack width up to 1 mm				permitted			
3. Partially inter-grown knots	permitted in size and number of falling out knots		permitted in number of live knots with diameter up to 15 mm, 10 per m ²					allowable with diameter up to 40 mm without number limitation	allowable with diameter up to 70 mm without number limitation		
4. Dead, falling out knots, their holes (without wane)	permitted in number of live knots with diameter up to 6 mm 3 per m ²				allowable with diameter up to 6 mm without number limitation			allowable with diameter up to 15 mm, 7 per m ²	allowable with diameter up to 40 mm without number limitation (permitted wane near knots with width 5 mm)	allowable with diameter up to 70 mm without number limitation (permitted wane near knots with width 5 mm)	
5. Closed cracks	permitted up to 200 mm, 2 per m of the panel width	permitted up to 200 mm, 5 per m of the panel width	permitted up to 300 mm, 5 per m of the panel width		permitted at edges and in the middle						

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URING DEFECTS											
6. Open splits, open seam on spliced veneer	not permitted		allowable with length up to 200 mm with width up to 1 mm, 2 per m. of the panel width	permitted with length up to 200 mm with width up to 2 mm, 3 per m. of the panel width	permitted with length up to 250 mm with width up to 2 mm, 3 per m. of the panel width	permitted with length up to 600 mm with width up to 2 mm, 2 per m. of the panel width + permitted with length up to 600 mm with width up to 5 mm on conditions of putty repair	permitted with length up to 600 mm with width up to 5 mm without repair + permitted open cracks with width not more than 2 mm, 1 per m. of the panel width	permitted with length up to 600 mm with width up to 2 mm, 2 per meter of the panel width + permitted with length up to 600 mm with width up to 5 mm on conditions of putty repair	permitted with length up to 600 mm with width up to 5 mm, 2 per m. of the panel width	permitted with length up to 800 mm with width up to 10 mm without number limitation	permitted with width up to 15 mm without number limitation
7. Wood defects (slope of grain, cross grain, curl, eye)	permitted, except black eyes	permitted									
8. Wood defects (sound inwane light and dark)	only light inwane permitted			light inwane permitted, dark inwane permitted in number of sound knots							
9. Wood defects (open inwane)	permitted in number of dead knots										
10. Sound color changes (false core)	not permitted			permitted up to 25 % panel area			permitted up to 75 % panel area				permitted

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11. Sound color changes (mottles, veins, vein traces)	permitted light with length up to 100 mm with width up to 2 mm, 3 per m ²	permitted light with length up to 175 mm with width up to 4 mm, 3 per m ²	permitted light with length up to 175 mm with width up to 4 mm, 5 per m ²	permitted with length up to 250 mm with width up to 10 mm, 10 per m ²		permitted					
12. Sound color changes (veins groups)	not permitted	permitted light 30x30 mm., 1 per m ²		permitted 60x40 mm., 1 per m ²		permitted					
13. Mineral streaks; secret stains (blue satin, color laburnum stains), storage color changes	permitted up to 5 % panel area	permitted up to 30 % panel area		permitted up to 50 % panel area (together with false heart)		permitted up to 75 % panel area (together with false heart)					permitted
14. Biological defects (wormholes)	permitted in the number of dead knots										

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15. Color defects with partial wood defects	not permitted										permitted as strip bands not more than 30 mm with length up to 200 mm, 2 per meter of the panel length
16. Plug repair	not permitted		permitted, one per m ² , shall be matched for grain	not permitted	permitted up to 8 per m ² , shall be matched for grain	permitted with 1 mm gap from one side or 0,5 mm from 2 sides	permitted dropped out plugs, one plug on one panel side	permitted with gap 1 mm from one side or 0.5 mm from 2 sides	permitted		
17. Double plug repair	not permitted				permitted one per m ²	permitted					
18. Split repair Putty or plug repair permitted if agreed	not permitted				splits opened more than 2 mm should be repaired by glued	splits opened more than 5 mm should be repaired by glued	permitted	splits opened more than 5 mm should be repaired by glued veneer patches and be well matched for color and grain		permitted	

with customer		veneer patches and be well matched for color and grain	veneer patches and be well matched for color and grain			
19. Beads from patch piece, sanding beads	not permitted	permitted with length up to 200 mm width 10 mm, 3 per panel	permitted with length up to 600 mm, width 10 mm, 5 per panel	permitted with width up to 10 mm	permitted	

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20. Overlapping	not permitted			permitted with length up to 100 mm with width up to 2 mm., one per meter of the panel width		permitted with length up to 300 mm with width up to 2 mm, two per meter of the panel width			permitted with length up to 600 mm with width up to 4 mm, two per meter of the panel width	permitted	
21. Manufacturing stains (beam traces, water stains)	not permitted			permitted not more than 10% panels in a bundle		permitted					
22. Glue seepage	not permitted		permitted up to 1 % panel area	permitted up to 2 % panel area (for width from 3 to 21 mm) permitted up to 5 % panel area (for width 24 mm and more)		permitted up to 5 % panel area (for width from 3 to 21 mm)			permitted up to 10 % panel area (for width form 3 to 21 mm), permitted up to 15 % panel area (for width 24 mm and more)	permitted	
23. Mechanical damage (splits, kerfs)	permitted in number with dead knots										
24. Scratches, scars, pimples, low spots, ridges	not permitted					permitted up to 0.5 mm height (depth) with	permitted up to 0.5 mm height (depth) with	permitted up to 0.5 mm height (depth) with	permitted with length up to 120 mm	permitted	
						length up to 120 mm with width up to 10 mm	length up to 120 mm with width up to 30 mm	length up to 120 mm with width up to 10 mm			

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25. Warp	in plywood up to thickness 6.5 mm ignored, more then 6.5 mm permitted not more then 15 mm per one meter of the panel diagonal length										
26. Glue thread	not permitted					permitted					
27. Blisters, delamination, wane	not permitted										
28. Sander skips (nonuniform sanding)	not permitted	permitted 5 mm from the edge			permitted up to 5 % panel area				permitted up to 50 % panel area	permitted	
29. Grinding of outer layers	not permitted				permitted up to 1 % panel area (for width from 3 to 21 mm)				permitted up to 5 % panel area		
					permitted up to 2 % panel area (for width 24 mm and more)						
30. Metal inclusions	not permitted					permitted staples from nonferrous metal					
31. Edge defects because of grinding, cuts, veneer shortage	not permitted	permitted with width up to 5 mm on edge							permitted with width up to 10 mm	permitted with width up to 25 mm	
32. Fiber tear	not permitted					permitted in number of dead knots				permitted	
33. Corrugation (ripples, hairiness)	not permitted			permitted up to 5 % panel area		permitted					
34. Rough edges	Roughness R_m according GOST 7016, micron, not more then: sanded plywood - 100, unsanded - 200										
35. Pockets (without wane)	not permitted			permitted in size of group veins (60x40 mm) 1 per m^2			permitted				