

### Siberian Larch Grading Rules

The main commercial 'appearance' grades of timber from Russia are available in five distinct quality divisions. These grades are assigned Roman Numerals going from I ('First's') - which denotes the best looking timber, down to V ('fifths') which denotes worst looking timber.

It is not possible to buy higher appearance grades from any Russian producer in all 'First' grade for example. Higher grade timber from Russia is nowadays sold as a mixed assortment

The highest commercially available 'appearance' grade of Siberian Larch is known as 'Unsorted'. Although the name would suggest that the material has not been sorted the timber has been sorted into the highest three appearance qualities - I,II & III or 'firsts', 'seconds' and 'thirds' (or simply described as I-III). 'Unsorted' grade Siberian Larch therefore consists of a mix of grade I – III.

The difference between the 'Unsorted' and 'Sawfalling' grades is that the latter also includes IV ('fourth') grade in the mix, therefore 'Sawfalling' consists of a mix of grades I – IV. The actual percentage of each quality division in any one shipment or pack of both 'Unsorted' and 'Sawfalling' grades correlates with the natural recovery of the timber while sawing.

Silva Timber stocks three grades of Siberian Larch: 'Unsorted' (I – III), 'Sawfalling' (I-IV) and 'Fourth' (IV) grades. 'Sawfalling' is the grade that is produced in the highest volumes by Russian Sawmills and it is a grade that is well suited to exterior cladding applications.

Wood defects	Limiting norms of wood defects by grades								
	Grade I		Grade II		Grade III		Grade IV		
	Size	Number	Size	Number	Size	Number	Size	Number	
<b>Knots</b>	Admitted on outside face in dimensions in mm and number in pieces on average per 1000mm of length of lumber								
Intergrown knots	10-14	1	15-18	1	19-25	3	Admitted		
Round and Oval								26-38	1
Face	In lumber of 75mm wide knots shall not exceed face width by								
	1/4	1/3		1/2		2/3			
	Number of knots on inside face of lumber of 1 & Grade IIs is admitted twice more and in Grade III one and a half times								
Edge & corner	Admitted on each edge with dimensions in mm and number in pieces for entire length of a piece.								
	up to 6	2-3	7-12	2-4	13-16	2-4	Admitted		
			13-19	2-3	16+ up to 3/4 thickness	2-4			
End	Admitted on each end with dimensions in mm and number in pieces								
	Not admitted				25	1	Admitted		
Spiky, 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 above								
	Dimensions 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 thickness		1/3 of thickness		Admitted		
Encased sound, unsound, decayed, rotten	Admitted on the outside face within the amount of intergrown sound knots with dimensions in mm and number in								
Face	Not admitted				19	1	5	1	
	Not admitted				Not admitted		19	1	
Through the board, unsound decayed and rotten	In lumber of 75mm wide knots shall not exceed face width by								
	Not admitted				1/3		1/2		
Edge & corner	Admitted on each edge with dimensions in mm and number in pieces for entire length of a piece.								
	Sound only								
	Not admitted				10	1-2	32	2-4	
Including knot holes	Knot holes no more than:								
	Not admitted				1/3 of face		thickness of lumber with showing on outside face not more than 2mm		
End	Not admitted				Admitted				

Wood defects	Limiting norms of wood defects by grades							
	Grade I		Grade II		Grade III		Grade IV	
	Size	Number	Size	Number	Size	Number	Size	Number
<b>Checks</b>	Admitted with the extent of not more than:							
Side checks	1/3		1/2		2/3			Admitted by conditions of integrity of lumber
Face checks	of length of lumber							
Non through	Without appearing on ends and edges				With appearing on one end up to 1/3 thickness without exiting from end to edge			
Through	Not admitted		Admitted without exiting on edges from outside and inside faces					
Through without appearing on the end, including ring shakes			1/4		1/3			
	Of a length of a piece							
Through appearing on end	Admitted with extension from each end of not more than, mm							
	30		40		50		width of lumber	
Edge checks	Admitted							
	Shallow, length not more than 40mm				Not crossing corners of edge		Admitted	
<b>End checks</b>								
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
Ring Shakes	Not admitted				Admitted with a diameter of not more than 25mm			Admitted by conditions of integrity of lumber

Wood defects	Limiting norms of wood defects by grades								
	Grade I		Grade II		Grade III		Grade IV		
	Size	Number	Size	Number	Size	Number	Size	Number	
<b>Defects of wood structure</b>									
Slope of grain	Admitted, if grain deviation from straight direction per 300mm of length of timber compose not more than						Admitted		
Compression wood	10mm		19mm		25mm		Admitted		
Pitch pockets	Admitted without splits on ends								
	On faces admitted non through with width not more than								
	3mm		3mm		6mm		Admitted		
	With length up to								
	25mm		75mm		125mm		Admitted		
	On each face in amount in pieces of not more than								
	2-3		3-4		5		Admitted		
	Without appearing on edges and ends								
	Indicated amount of pitch pockets is admitted in less numbers on outside face and more numbers on inside face.								
	On edges								
Not admitted		Admitted						Admitted	
		1/2 of norm for outside face		Width up to 3mm, length up to 100mm in amount up to 4 pieces on each edge				Admitted	
On ends									
Not admitted				Admitted with width up to 3mm and length up to 1/3 of width of lumber				Admitted	
Pith	Not admitted				Admitted attached to inside face		Admitted		
Bark Pockets	Not admitted				Admitted on faces non through not more than 25mm wide of 1 piece up to 75mm long and up to 3 pieces with length up to 50mm. On edges 2 pieces up to 2mm wide, not more than 15mm long; not admitted on ends		Admitted up to 50mm wide, up to 175mm long		
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							
	Grade I		Grade II		Grade III		Grade IV	
	Size	Number	Size	Number	Size	Number	Size	Number
<b>Fungal defects</b>								
Fungal heartwood stains (streaks)	Not admitted						Admitted on faces and edges up to 1/2 width and length of lumber, admitted showing on end with covering of not more than 10% of end's area	
Light fungal sap stains (streaks)								
Surface	Not admitted				Admitted on faces and edges up to 2mm 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 streaks	
Deep	Not admitted				Admitted on faces and edges up to 2mm 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 2mm deep in shape of spots and streaks with total area of covering not more than 50% of area of one face and edges. With covering of not more than 10% of end area.	
Volume of lumber with maximum admitted norm of deep fungal sap stains in a batch of Grade IV shall not exceed 25%								

Wood defects	Limiting norms of wood defects by grades							
	Grade I		Grade II		Grade III		Grade IV	
	Size	Number	Size	Number	Size	Number	Size	Number
<b>Sap Decay</b>								
Firm	Not admitted						Admitted on faces and edges up to 1/2 of width and length of lumber without appearing on end	
Soft	Not admitted							
Heart Decay	Not admitted							
External Rot	Not admitted							
Wormhole	Not admitted							