

Surface Qualities of Glued Laminated Timber

A brief overview of the possible surface qualities of the natural product glued laminated timber from HESS TIMBER.

HESS TIMBER GmbH

63924 Kleinheubach | Am Hundsrück 2 | Germany
T +49 9371 40 03 100 | F +49 9371 40 03 360 | info@hess-timber.com
hess-timber.com

N o	CRITERA ¹	INDUSTRIAL - QUALITY Definition: Studiengemeinschaft Holzleimbau	VISUAL - QUALITY Definition: Studiengemeinschaft Holzleimbau	NATURE - QUALITY Definition: HESS TIMBER GmbH	SPECIAL - QUALITY Definition: HESS TIMBER GmbH
1	Firmly grown knots ^{2,3}	permitted	permitted	permitted	acc. customer requirement
2	Fallen and loose knots ^{2,3}	permitted	Up to $\varnothing < 20$ mm permitted ⁴ $\varnothing > 20$ mm are to be replaced in the works ⁴	permitted	
3	Resin gall ^{3,5}	permitted	Resin galls are permitted up to 5 mm	permitted	
4	Knots and faulty points improved by means of knot hole plugs or „ships“ ³	not necessary	permitted	not necessary	
5	Knots and resin galls improved by means of filler compound ³	not necessary	permitted ⁶	not necessary	
6	Insect attack ³	permitted are burrows up to 2 mm	permitted are burrows up to 2 mm	permitted are burrows up to 2 mm	
7	Pith	permitted	permitted	permitted	
8	Cracks caused by shrinking ^{3,5,7}	no limit	up to 4 mm	no limit	
9	Discolorations as a result of blue stain, red and brown nail solid stripes ⁵	no limit	up to 10 % of the visible surface of the whole construction component	up to 10 % of the visible surface of the whole construction component	
10	Mould ⁵	not permitted	not permitted	not permitted	
11	Contamination of the surface ⁵	permitted	not permitted	not permitted	
12	Distance between fingerjoints	no limit	no limit	no limit	
13	Surface	levelled out	planed and camfered chatter permitted up to a depth of 1 mm	planed and camfered	

ANNOTATIONS

¹ Deviations from the limit values defined in the following in lines 2, 3, 6-9, 12, 13 are to be tolerated to the following extent: maximum of three deviations/m² visible surface for the quality of vision, maximum of one deviation/m² visible surface for selection quality.

² Permissible knot size according to DIN 4074: 2012

³ Without limitation of the number

⁴ Measurement of the diameter of the knots analogue to the measurement of the diameter of individual knots for scantlings according to DIN 4074-1: 2012, 5.1.2.1.

⁵ Delivery condition

⁶ Filler compound which can be painted over is to be demanded explicitly.
















⁷ As in all constructional solid wood products cracks can be present. The depth of the crack, measured with a 0.1 mm thick feeler gauge and independent of the quality of the surface for construction components, may be, for members not being subject to tensile-stresses perpendicular to the grain up to 1/6 of the width of the construction component, for members being subject to tensile- stresses perpendicular to the grain, up to 1/8 of the width of the component from each side. With deeper cracks the non-critical state should be checked by an expert.

Surface Qualities of Glued Laminated Timber

A brief overview of the possible surface qualities of the natural product glued laminated timber from HESS TIMBER.

HESS TIMBER GmbH

63924 Kleinheubach | Am Hundsrück 2 | Germany
 T +49 9371 40 03 100 | F +49 9371 40 03 360 | info@hess-timber.com
 hess-timber.com

No	CRITERIA ¹	INDUSTRIAL - QUALITY Definition: Studiengemeinschaft Holzleimbau	VISUAL - QUALITY Definition: Studiengemeinschaft Holzleimbau	NATURE - QUALITY Definition: HESS TIMBER GmbH	SPECIAL - QUALITY Definition: HESS TIMBER GmbH
1 2	Firmly grown knots Fallen and loose knots	permitted are firmly grown knots 	permitted are firmly grown knots  Fallen and loose knots Up to $\varnothing < 20 \text{ mm}$ permitted 4 $\varnothing > 20 \text{ mm}$ are to be replaced in the works 4	permitted are firmly grown knots 	acc. customer requirement
3	Resin gall	permitted 	Resin galls are permitted up to 5 mm 	permitted 	
7	Pith	permitted 	permitted 	permitted 	
8	Cracks caused by shrinking	no limit 	up to 4 mm 	no limit 	
9	Discolorations as a result of blue stain, red and brown nail solid stripes	no limit 	up to 10 % of the visible surface of the whole construction component 	up to 10 % of the visible surface of the whole construction component 	

ANNOTATIONS

¹ These are examples for surface qualities. Due to natural variation of the material wood, it is possible to get variations because of material and season.