

SURFACE QUALITIES OF GLULAM

Criteria ¹	Industrial quality	Visible quality
Firmly grown knots ^{2, 3}	Permitted	Permitted
Fallen and loose knots ^{2, 3}	Permitted	Up to $\varnothing < 20$ mm ⁴ permitted from $\varnothing > 20$ mm to be replaced in the works ⁴
Resin gall ^{3, 5}	Permitted	Resin galls are permitted up to 5 mm
Knots and faulty points improved by means of knot hole plugs or „ship“ ³	Not necessary	Permitted
Knots and resin galls improved by means of filler compound ³	Not necessary	Permitted ⁶
Insect attack ³	Permitted are burrows up to 2 mm	Permitted are burrows up to 2 mm
Pith	Permitted	Permitted
Cracks caused by shrinking ^{3, 5, 7}	No limit	Up to 4 mm
Discolorations as a result of blue stain	No limit	Up to 10 % of the visible surface of the whole construction component
Mould ⁵	Not permitted	Not permitted
Contamination of the surface ⁵	Permitted	Not permitted
Distance between fingerjoints	No limit	No limit
Surface	Levelled out	Planed and chamfered chatter permitted up to a depth of 1 mm

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.

² The maximum knot size depends on the strength grading. In case of visual strength grading maximum allowed knot sizes may e.g. be taken from DIN 4074-1, if this grading standard is applied

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: 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 noncritical state should be checked by an expert.