HASSLACHER NORICA TIMBER

finger jointed structural timber - quality description

Stress grading according to ON DIN 4074 or ON EN 14081
Strength classes: C24 (standard) or C30 (on request) according to EN 338
Finger joints according to ON EN 385, Adhesive: Polyurethan (PUR), without formaldehyd
Kind of wood: Spruce (standard), Pine (on request)
Standard length 13.00 m (lengths from 2.50 up to 18.00 m on request possible)

Structural Timber - quality description

Grading feature	SELECT quality (S10/C24)	industrial quality (S10/C24)
kind of wood	spruce	spruce (fire allowed) or pine
wane	not allowed	up to 10 % of the cross section
knots(1)	up to 40 % of the cross section(2)	up to 40 % of the cross section
annual ring with(3)	up to 6 mm	up to 6 mm
global grain deviation	up to 12 cm/m	up to 12 cm/m
shrinkage crack	crack width up to 3 mm	crack depth up to 50 %
drying cracks(4)	crack width up to 3 mm	allowed
flash/freezing cracks, ringshake	not allowed	not allowed
blue stain	not allowed	allowed, no strength reducing
red and brown bands	not allowed	allowed
red and white pocket	not allowed	not allowed
box, compression wood	up to 40 % of the surface	up to 40 % of the surface
demage caused by insects	not allowed	up to 2 mm diameter allowed
mistletoe	not allowed	not allowed
moisture content	up to 18 %	up to 18 %
cutting pattern	heart separated	heart separated
dimensional accuracy	according to EN 336 tolerance class 2 within a referenz moisture of 15 %	according to EN 336 tolerance class 2 within a referenz moisture of 15 %
embedded bark	not allowed	dealing like knots
resin pockts	with up to 5 mm, no clusters allowed	allowed
surface	all side planed and chamfered	all side planed and chamfered, rough zones are allowed
Endings	right-angled cutted ± 1 mm difference	right-angled cutted ± 1 mm difference
maximum cross section	140/240 mm respectively 100/280 mm	140/240 mm respectively 100/280 mm

(1) diameter of knots up to 40 % of the height respectively width
(2) loosely knots, knot howles and sporadical knots with black wane are allowed up to a diameter of 20 mm
(3) The average annual ring with is determined according to EN 1310, an area up to 25 mm around the pith will be unaccounted.
(4) on the edge peacked
The specified grading rules in the table can be pass over in 5 % of the delivered pieces, because of unavoidable faults in grading or in the moisture content. In the case of machine graded structural timber according to the grading rules of EN 14081 deviations of the showed grading rules in the table are possible and allowed especially in the case of industrial quality.

Characteristic values according to ON EN 338 [N/mm²]

strength class		C24	C30
Mean modulus of elasticity		11.000	12.000
Bending	$f_{m,k}$	24	30
Tension parallel	$f_{t,0,k}$	14	18
Compression parallel	$f_{c,0,k}$	21	23
Compression perpend.	$f_{c,90,k}$	2,5	2,7
Shear	$f_{v,k}$	4,0	4,0

GLT next generation

Girder Longitudinally Tensiletested are quality assured acc. to ON B 4125. Because of the tensile test of each beam the partial safety factor can be reduced and smaler cross sections are possible.

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