HS TIMBER

QUALITY CLASS DESCRIPTION

Pine (Pinus sylvestris)

MEASUREMENT GUIDELINES / DEFINITIONS

Knots

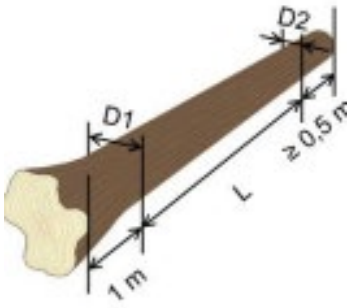
The measurement is done on the point of the biggest diameter, without taking the starting yearrings of the knot into consideration.

Healthy knots = are grown together with the surrounding wood mass

Dropping knot = are not grown together with the surrounding wood mass; regularly with bark around the knot.

Conicity, Taper

Conicity is a decrease in diameter with the length of the log. Logs are considered to be conical if the diameter decreases by more than 1 cm for every 1 m of log length.
The conicity is measured electronically and stated in cm/running meter. The starting roots are not taken into account.



$$Taper = \frac{D1-D2}{L}$$

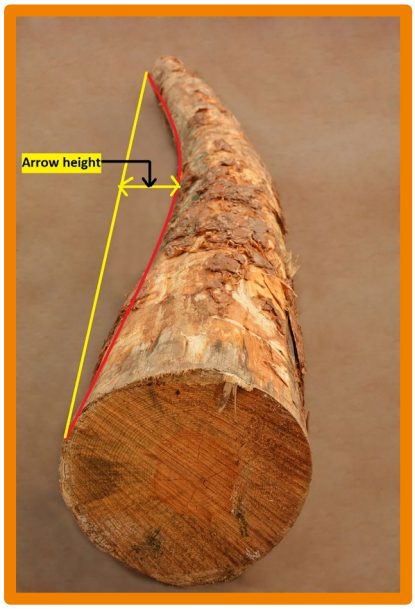
Spiral growth

Spiral growth is the screw-like course of the wood fiber around the rotation axis. It is given in cm/lfm or %.

Curvature, Crookedness

The curvature is the deviation of the longitudinal axis from the straight line. The curvature is measured electronically and can be one- or two-sided.

A one-sided curvature is characterized by only one bending, whereas a two-sided curvature is characterized by two or more bends in one or multiple planes. Curvature is measured electronically and expressed in cm/lfm as the quotient of arrow height (cm) to log length.



$$Curvature = \frac{Arrow\ height\ (cm)}{Log\ length\ (m)}$$

Compression wood („Buchs“)

Is reaction wood formed by lignin intercalation which is characterized by a brown-reddish discoloration following the yearring. The measurement is made as a percentage of the visible surface.

Cracks

Relevant are frontal and core cracks and also cracks on the lateral surface. Logs with just superficial frontal and core cracks are not downgraded, whereas logs with deep frontal and core cracks and also cracks on the lateral surface are downgraded.

Crack on the lateral surface

Superficial frontal core crack

Insects

Relevant are beetles, lineatus and wood wasps.



Colorations / rots

Relevant are blue stain and red stripes.

Blue stain

Red stripes

Rots are divided into hard- (nail-proof) and soft- (not nail-proof) rot.

Axe- und nail proof

Not nail proof

Quality classes and limiting values B, C, D

Pine			
Characteristics	**B**	**C**	**D**
Knots	Knots 0-4 cm allowed, normal knottiness	Knots 4-6cm allowed, normal knottiness	Knots > 6 cm, knotty tops, coarse wood, marginal trees
Bulges	Not allowed	Leight bulges allowed	Allowed
Conicity, taper	0-1,0 cm/lfm allowed	1,1-1,4 cm/lfm	> 1,4cm/lfm
One-sided curvature	0-1,0 cm/lfm allowed	1,1-1,4 cm/lfm	1,5-2,0 cm/lfm
Two-/unconstricted curvature	Not allowed	Not allowed	Not allowed
Compression wood	Allowed	Allowed	Allowed
Spiral growth	Allowed	Allowed	Allowed, if still sawable
Frontal- und core cracks	Slight cracks that do not go deep into the wood allowed	Slight cracks that do not go deep into the wood allowed	Allowed, if still sawable
Lateral surface cracks (Dry cracks)	Not allowed	Not allowed	Wenige kleine Mantelrisse bis max. 1/3 des Stammdurchmessers
Cracks due to growth, breaks, tension, felling, overloading, …)	Not allowed	Not allowed	Allowed, if still sawable
Red stripes	Not allowed	Not allowed	Allowed
Axe- and nail proof rot	Not allowed	Small rot spots in the edge allowed	Allowed
Blue stain	Not allowed	Light, seasonal approach blues allowed	Allowed
Wood-boring insects	Not allowed	Not allowed	Not allowed
bark-breeding insects	Not allowed	Not allowed	Allowed
Wood condition	Fresh, firm bark	Fresh, firm bark	Dry, loose or fallen bark
Metal, foreign objects, resinated pine	Not allowed	Not allowed	Not allowed
Soft rot	Not allowed	Not allowed	Not allowed

Reject, pulpwood, FH

Wood that is no longer suitable for sawing is classified as reject/pulp wood (FH).
Classification as FH is often the result of a combination of several defects.
Examples are: forked log, forest fire pieces, hollow pieces, soft rot, broken pieces, very strongly bent wood and wood-boring insects, resinated logs.

Resinated log

Metal FE

Round wood that has insertions of metallic foreign objects. Logs with metal cannot be aceepted as saw logs.

Kontakt

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