

## Spruce (*Picea abies* L.)



Growth area: Europe, Northern Asia.

Trees: The straight cylindrical branch free trunk is on average 20m in length and has a diameter of about 80cm, depending on the age and height of the tree.

Description: There is no difference in colour between the sapwood and the heartwood. The colour is white till light yellowbrown, discolouring to yellowbrown. Quarter sawn boards show a clear straight grained figure. Plain sawn timber shows a growth ring figure. This is due to the colour difference between the early- and latewood.

Texture/Figure: Straight grain. Moderately fine texture.

Smell/Taste: Resinous.

Machining: The wood is easy to machine.

Gluing: Well.

Drying: Quick with possibility of twisting and bowing at areas where there is reaction wood. Proper stickering can avoid this. Kilning above temperatures of 70 degrees can cause loose knots.

Fixation: Keeps nails and screws well, pre-drilling is not necessary.

Durability: Class IV.

Density: Unseasoned: 520 - 1100 kg / m<sup>3</sup>; Moisture content 12%: 460 (300 - 620) kg / m<sup>3</sup>

Shrinkage: Radial: 4,1%; Tangential: 8,9% (till oven-dry, in general less than this)

Bending strength: 69 N/mm<sup>2</sup> (Moisture content 12-15%, measurement till rupture)

Modulus of Elasticity: 8900 N/mm<sup>2</sup> (Moisture content 12-15%)

Applications: Building timber, constructions, windows, doors, stairs, flooring, interior- and exterior joinery works, beams, CLS, furniture, skirting-boards, vessels, boxes, pallets, garden timber, round poles, piles, triplex, scaffold boards, musical instruments.

