




# Wooden facades




A quick overview of wooden species and basic parameters

## Nordic spruce

Profile	Dimensions (mm)	Lengths (m)	
Classic	19 x 171	4,2	
	19 x 196	3,0 - 4,2	
Classic/Softline	19 x 121	2,1 - 5,1	
	19 x 146		
CONO	26/13 x 146	2,1 - 5,1	

## Thermo ash

Profile	Dimensions (mm)	Lengths (m)	
Tongue and groove	20 x 117	(invading) 1 - 3,8	

All profiles with tongue and groove are listed and charged per m<sup>2</sup> including tongue.

## Siberian larch

Profile	Dimensions (mm)	Lengths (m)	
Raute	26 x 69	2,1 - 4,0	
Classic	19 x 145	2,1 - 5,1	
Planed board	20 x 90	2,1 - 4,0	
Planed board	20 x 140	2.10 - 6	
	19 x 144		

## Czech larch

Profile	Dimensions (mm)	Lengths (m)	
Raute	24 x 68	3 - 5	
	24 x 100	3 - 5	
Raute with a tongue and a groove	24 x 107	3 - 5	
Classic	19 x 146	3 - 5	
	19 x 121	3 - 5	
Planed board	19 x 121	3/4/5	
	19 x 140	3/4/5	
	19 x 200	3/4/5	
	24 x 200	3/4/5	
4 sides Planed subconstruction, cink	40 x 60	3 - 4	

All profiles with tongue and groove are listed and charged per m<sup>2</sup> including tongue.

## Thermowood pine

Profile	Dimensions (mm)	Lengths (m)	
Raute	26 x 68	1,5 - 5,1	
	26 x 65		
Raute	26 x 92	1,5 - 5,1	
	26 x 92		
Classic	19 x 120	2,1 - 5,1	
	19x 140	2,1 -5,1	
Planed board	19 x 140	3 - 5	
4 sides Planed subconstruction	42 x 42	2,1 - 4,2	
	42 x 68		
	42 x 92		

## Western Red Cedar

Profile	Dimensions (mm)	Lengths (m)	
Raute	20 x 90	2,1 - 4,0	
Classic	17,5 x 137	0,9 - 2,1	

## Dark Red Meranti

Profile	Dimensions (mm)	Lengths (m)	
Raute	20 x 90	2,1 - 4,0	
Softline	16 x 120	1,83 - 4,87	
Planed board	18 x 140	1,83 - 4,87	
Planed subconstruction	30 x 55	1,83 - 5,87	

All profiles with tongue and groove are listed and charged per m<sup>2</sup> including tongue.

## Choice of steel for bolts according to their corrosion resistance

Step by step:

Select the appropriate screw material for your project by observing the following principles. Go through the following three points in order.

The material suitable for points 1. and 2. is marked with at least an (X) or even better with an X. For additional chemical loading, point 3 must also match accordingly..

1. How is the structural part laid? Is it freely exposed to the weather (fence) or protected (ceiling beams)?
2. What kind of timber will be attached? Is it a non-problematic construction wood or a tropical wood rich in tannins?
3. Are there additional loads on site to promote corrosion? Is the site close to the sea? Heavy industry, etc.?

Example: fastening a facade made of larch wood:

1. Useful class = 3, because the material is freely exposed to the weather. Cladding = optical requirements - min. C1
2. Larch - min. C1, A2 or A4 should be preferred.
3. This point is dropped as there are no other external loads.
4. C1 is an option, but A2 or A4 should be preferred.

Group of steel	Carbon steel		Niro-steel, martensitic	Niro-steel, austenitic	
	Galvanised	Specially coated	C1, ušlechtilá ocel tvrzená	Stainless steel A2	Stainless steel A4
Examples of products:	Paneltwistec blue/yellow Hobotec blue/yellow	Paneltwistec 1000 Topduo	Terassotec stainless steel Hardened Hapatec	Terrassotec V2A	Terrassotec V4A Hapatec Heli
<b>1. Where to store the part?</b>					
NKL 1 <sup>a)</sup>	X	X	X	X	X
NKL 2 <sup>a)</sup>	X	X	X	X	X
NKL 3 <sup>a)</sup>	-	(X) <sup>b)</sup>	X	X	X
<b>2. What kind of wood? <sup>c)</sup></b>					
Construction timber, wooden materials	X	X	X	X	X
Beech (red)	X	X	X	X	X
Douglasia	-	-	(X) <sup>e)</sup>	X	X
Spruce	X	X	X	X	X
Pine	X	X	X	X	X
Larch	-	-	(X) <sup>e)</sup>	X	X
Coniferous wood, pressure impregnated	(X) <sup>b)</sup>	(X) <sup>b)</sup>	(X) <sup>b)</sup>	(X) <sup>b)</sup>	X
Red cedar	-	-	-	(X) <sup>f)</sup>	X
Fir	X	X	X	X	X
Coniferous thermo wood	-	-	-	(X) <sup>f)</sup>	X
Abachi	-	-	-	(X) <sup>f)</sup>	X
Afzelia, doussie	-	-	-	(X) <sup>f)</sup>	X
Azobe, Bongossi	-	-	-	-	X
Bangkirai, Balau	-	-	(X) <sup>e)</sup>	X	X
Bilinga	-	-	-	(X) <sup>f)</sup>	X
Courbaril, Jatoba	-	-	-	-	X
Cumaru	-	-	-	(X) <sup>f)</sup>	X
Chestnut	-	-	-	-	X
Oak	-	-	-	-	X
Eucalyptus	-	-	-	-	X
Garapa	-	-	-	-	X
Ipe	-	-	(X) <sup>e)</sup>	X	X
Iroko	-	-	(X) <sup>e)</sup>	X	X
Itauba	-	-	-	-	X
Cosipo	-	-	-	-	X
Massaranduba	-	-	-	-	X
Merbau	-	-	-	-	X
Dark red meranti	-	-	-	-	X
Thermo ash	-	-	-	(X) <sup>f)</sup>	X
<b>3. Additional chemical treatment?</b>					
Permanent condensation <sup>g)</sup>	-	-	-	(X) <sup>b)</sup>	X
Salt loading <sup>h)</sup>	-	-	-	(X) <sup>b)</sup>	X
Aggressive atmosphere <sup>k)</sup>	-	-	-	-	(X) <sup>m)</sup>
Air containing chlorine <sup>l)</sup>	-	-	-	-	-

a) Useful classes according to DIN 1052:2008 and EN 1995:2008. NKL 1 - structural parts closed in all directions, partially heated buildings. NKL2- structural parts of roofed, open buildings without direct exposure to weather conditions. NKL3- structural parts freely exposed to weather conditions.

b) Can only be recommended for attachment points of minor importance or for temporary objects or when there are no optical requirements.

c) Hardwood is recommended to be pre-drilled and possibly pre-slotted. For terrace and façade construction, this also applies to softwood.

d) Without finish: spruce, fir, pine. BSH, KVH®, veneered laminated timber, solid wood, etc. plywood, OSB, fibreboards, cement and gypsum bonded fibreboards, etc.

e) There are no problems with corrosion or discoloration of the wood when using this wood and C1 after 10 years of experience. However, depending on the origin of the wood, this cannot be completely ruled out. Please check with your wood dealer.

f) The use of A4 is recommended. Please check with your wood dealer.

g) Intermittent condensation of water vapour in an atmosphere with only minor contamination.

h) Structural components near roads affected by winter service, near shoreline facilities, near shoreline facilities, or other industrial facilities.

i) For example, structural components in road tunnels, pigsties or in static aggressive air with possibly additionally higher humidity.

j) Structural components in indoor swimming pools or other chlorine-containing atmospheres.

k) Usage is to be double-checked on a case-by-case basis.