

Living and Woven 120 Economy Green Barrier



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DS/EN 14388:2006, DS/EN 1794-1:2003 and DS/EN 1794-2:2003

Noise barrier for reducing road traffic noise. Type: "DET GRØNNE ELEMENT - FACADE levende pil"
Width = 1540 mm; Column material acacia
Distance between steeltubes= 600mm
Sides: Living willow and woven willow
Acoustic element with 120 mm isolation type RockDelta Stenuid Dual 200/80 kg/m³

Dry and reduced wet self weight of an acoustic element:

Dry weight	Approximately 32 kg/m ³
Reduced Wet weight	Approximately 43 kg/m ³

Material data (Characteristic values):

	Compressive strenght $f_{c,0k}$	Bending strenght $f_{m,k}$	Modulus of elasticity E_k
Acacia	35 MPa	40 MPa	11600 MPa
Steel S235	$f_{yk}=235$ MPa		2100 GPa

Resistance to loads (*if characteristic value):

Maximum vertical load an element can withstand: 1,0 kN/m*

Normal (90°) load an acoustic element can withstand (Due to wind and static) 0,94 kN/m²*

Normal (90°) load a structural element can withstand (Due to wind, selfweight and static):

Columns

Height	Dim.	Maximum uniform load	Maximum bending moment at ground level
1,5m	100x100mm	3,86kN/m	4,31kNm
2,0m	100x100mm	2,15kN/m	4,31kNm
2,5m	100x125mm	2,16 kN/m	6,75kNm
3,0m	100x150mm	2,18 kN/m	9,79kNm

Steel bars	3/4-1"	(Upper)	0,80-1,60 kN/m
	3/4-1"	(Lower)	0,80-1,60 kN/m

Sound Absorption: DL_{α}	9 dB
Airborne sound insulation: DL_{R}	22 dB
Sound reduction index: R_w	26 dB
Light reflectivity:	NPD
Risk of falling debris:	Class 0

Expected Durability of Non Acoustic Characteristics:

Service Life, Acoustic element:	50 years
Service Life, Structural element: Material (Undressed and in contact with the ground)	
Acacia	years > 36