

Cembrit Patina Original

Dimension tolerance (EN 12467, Level 1)		Patina 6 mm	Patina 8 mm
Thickness (up to 20mm)	mm	± 0.6	± 0.8
Width (1000mm <a< 1600mm)	mm	± 0,3% a	± 0,3% a
Length (1600mm < Length)	mm	± 5.0	± 5.0

Physical properties			
Density, dry minimum (EN12467)	kg/m ³	≥ 1400	≥ 1475
Density, dry average (EN12467)	kg/m ³	1450	1550
Weight (incl. 10% moisture)*	kg/m ²	9.3	12.4
Moisture content (on dispatch ex works)	%	5-10	5-10

* nominal value may vary depending on the conditions

Mechanical properties (EN 12467)			
Bending modulus of elasticity			
E-module along grain, ambient	GPa	12	12
E-module across grain, ambient	GPa	13	14
E-module along grain, wet	GPa	9	9
E-module across grain, wet	GPa	11	11

Bending strength (EN 12467)			
Along grain, ambient	MPa	22	22
Across grain, ambient	MPa	35	35
Along grain, wet	MPa	17	18
Across grain, wet	MPa	26	27

Impact strength (Pendulum test)			
Along grain, dry	kJ/m ²	2.2	2.7
Across grain, dry	kJ/m ²	2.7	3.6

Thermal properties			
Thermal conductivity (ISO 8301, EN 12667), λ_{10}	W/mK	0.32	0.37
Coefficient of thermal expansion	mm/m °C	0.01	0.01
Temperature (air) in use	°C max	-40 - +80	-40 - +80
Frost resistance (average along/across)	R _L	≥ 0.75	≥ 0.75

Hygrothermal properties			
Water absorption (24 hrs 105°C, 24 hrs in water)	%	28	28
Moisture movement (30/90 % RH, EN 12467)	mm/m	0.8	0.8

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Water vapour transmission properties (EN 12572-C)					
Water vapour transmission resistance (Z-value)		GPa m ² s/kg	2.4		2.5
Water Vapour transmission resistance (Z-value)		s/m	17700		18500
Water vapour diffusion equivalent air layer thickness, Sd		m	0.5		0.5
Water vapour resistivity		MN s/gm	366		327
Water vapour resistance factor, μ			58		58
Water vapour resistance		MN s/g	2.4		2.5
Water vapour transmission		USPerm	7.2		7.0
Fire Performance					
Reaction to fire (EN 13501-1)		Rating	NA		A2-s1, d0
Behavior of materials at 750°C (ASTM E136)		Rating	NA		Passed
External thermal insulation for walls (BS 8414-2-2015+A1-2017)*		Rating	NA		Passed
* Tested with special requirements. Contact Product Compliance for further informations.					
Other properties					
Category, class (EN12467)			NT A4 I		NT A4 I
Impact resistance test (ETAG 034, ISO 7892), 8 mm					
	Max.	Category IV	Category III	Category II	Category I
Hard body	1 Joule	Passed			
	3 Joules		Passed	Passed	Passed
	10 Joules			Passed	Passed
Soft body	10 Joules	Passed	Passed		
	60 Joules			Passed	Passed
	300 Joules			Not passed	
	400 Joules				Not passed
Evaluation		Passed	Passed	Not passed	Not passed
Ballwurfsicherheit (DIN 18032-3) - (Impact resistance), Wall and Ceiling, 12 mm					
	Angle of Impact	Number of shots	Subconstruction	Distance, subconstruction	Test result
Handball	90	30			
	45	12	Aluminium	315 mm	Passed as "Ballwurfsicher"
	45	12			
Hockeyball	90	4			
	45	4	Aluminium	315 mm	Passed as "Ballwurfsicher"
	45	4			

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