



SILBONIT SAFE are asbestos free double pressed and autoclaved flat boards with smoothed surface and rectified edges. They are through colored, reinforced with mineralized cellulose fibers and with a fiberglass mesh applied to the back. **SILBONIT SAFE** boards are CE marked according to EN 12467
 Technical Data Sheet (rev.4 del 12/04/2023)

SILBONIT SAFE NATURALE (untreated boards)

	Unit of measure	Value
STANDARD DIMENSIONS** AND GEOMETRY		
Length	mm	2500 3000 3050
Width	mm	1200 1250
Thickness		5-6-8-10-12
Tollerances on nominal dimensions	Classification according to EN 12467:2018	Level 1
- on length	mm	± 2
- on width	mm	± 1
- on straightness of edges	%	0,1
- on squareness of edges	mm/m	2
- on thickness for smooth sheets	mm	± 0,5
Nominal weight	kg/m ²	9 (t=5mm) 10,8 (t=6mm) 14,4 (t=8mm) 18,0 (t=10mm) 21,6 (t=12mm)
PHYSICAL PROPERTIES		
Peso specifico allo stato secco	kg/m ³	1600 ± 50
PROPRIETA' MECCANICHE		
E modulus of elasticity (dry)		
- longitudinal	GPa	14
- transversal	GPa	12
E modulus of elasticity (wet)		
- longitudinal	GPa	11
- transversal	GPa	9
Bending strength (wet)	MPa	≥24
Resistance (Charpy test)	According to EN 179-1:2010	
- longitudinal	kJ/m ²	4,3
- transversal	kJ/m ²	3,1
HYGROMETRICAL PROPERTIES		
Natural humidity	%	10 ÷ 15
Max water absorption (wet over dry)	%	≤25
Moisture movement – Relative humidity change from 30% to 90%		
- longitudinal	mm/m	0,7
- transversal	mm/m	0,8
THERMAL AND WATER VAPOUR PROPERTIES		
Vapor resistance factor, μ – according to EN 12572:2016	---	49
Thermal conductivity – according to EN 12664:2002	W/mK	0,42
Thermal expansion coefficient – according to EN 10545-8:2014		
- longitudinal	1/°C	1,71•10-6
- transversal	1/°C	0,58•10-6



	Unit of measure	Value
OTHER PROPERTIES		
Superior calorific power	MJ/kg	≤2,0
Fire rating class	According to EN 13501-1	A2 s1 d0
Freeze-thaw performance		RL ≥ 0,75
Durability classification	According to EN 12467:2018	category A
Strength classification	According to EN 12467:2018	class 5
Impact resistance	NF F31-129: 2013	Pass
Hard body impact resistance	ETAG 034-1:2012	Pass
Determination of the sound coefficient absorption in reverberation room	UNI EN ISO 354: 2003	No reverberation effect
Cyclic pressure and depression test (10 ⁵ number of cycles)	-----	No deformation or variation in performance
CE marked product according to	---	EN12467

** On request are available smaller dimensions.

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SILBONIT SAFE HYDRO (transparent hydrophobic treatment)

	Unit of measure	Value
STANDARD DIMENSIONS** AND GEOMETRY		
Length	mm	2500 3000 3050
Width	mm	1200 1250
Thickness		5-6-8-10-12
Tollerances on nominal dimensions	Classification according to EN 12467:2018	Level 1
- on length	mm	± 2
- on width	mm	± 1
- on straightness of edges	%	0,1
- on squareness of edges	mm/m	2
- on thickness for smooth sheets	mm	± 0,5
Nominal weight	kg/m ²	9 (t=5mm) 10,8 (t=6mm) 14,4 (t=8mm) 18,0 (t=10mm) 21,6 (t=12mm)
PHYSICAL PROPERTIES		
Peso specifico allo stato secco	kg/m ³	1600 ± 50
PROPRIETA' MECCANICHE		
E modulus of elasticity (dry)		
- longitudinal	GPa	14
- transversal	GPa	12
E modulus of elasticity (wet)		
- longitudinal	GPa	11
- transversal	GPa	9
Bending strength (wet)	MPa	≥24
Resistance (Charpy test)	According to EN 179-1:2010	
- longitudinal	kJ/m ²	4,3
- transversal	kJ/m ²	3,1
HYGROMETRICAL PROPERTIES		
Natural humidity	%	10 ÷ 15
Max water absorption (wet over dry)	%	≤25
Moisture movement – Relative humidity change from 30% to 90%		
- longitudinal	mm/m	0,7
- transversal	mm/m	0,8
THERMAL AND WATER VAPOUR PROPERTIES		
Vapor resistance factor, μ – according to EN 12572:2016	---	49
Thermal conductivity – according to EN 12664:2002	W/mK	0,42
Thermal expansion coefficient – according to EN 10545-8:2014		
- longitudinal	1/°C	1,71•10-6
- transversal	1/°C	0,58•10-6



	Unit of measure	Value
OTHER PROPERTIES		
Superior calorific power	MJ/kg	≤2,0
Fire rating class	According to EN 13501-1	A2 s1 d0
Freeze-thaw performance		RL ≥ 0,75
Durability classification	According to EN 12467:2018	category A
Strength classification	According to EN 12467:2018	class 5
Impact resistance	NF F31-129: 2013	Pass
Hard body impact resistance	ETAG 034-1:2012	Pass
Determination of the sound coefficient absorption in reverberation room	UNI EN ISO 354: 2003	No reverberation effect
Cyclic pressure and depression test (10 ⁵ number of cycles)	-----	No deformation or variation in performance
CE marked product according to	---	EN12467

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SILBONIT SAFE HYDROPLUS (transparent hydrophobic treatment)

	Unit of measure	Value
STANDARD DIMENSIONS** AND GEOMETRY		
Length	mm	2500 3000 3050
Width	mm	1200 1250
Thickness		5-6-8-10-12
Tollerances on nominal dimensions	Classification according to EN 12467:2018	Level 1
- on length	mm	± 2
- on width	mm	± 1
- on straightness of edges	%	0,1
- on squareness of edges	mm/m	2
- on thickness for smooth sheets	mm	± 0,5
Nominal weight	kg/m ²	9 (t=5mm) 10,8 (t=6mm) 14,4 (t=8mm) 18,0 (t=10mm) 21,6 (t=12mm)
PHYSICAL PROPERTIES		
Peso specifico allo stato secco	kg/m ³	1600 ± 50
PROPRIETA' MECCANICHE		
E modulus of elasticity (dry)		
- longitudinal	GPa	14
- transversal	GPa	12
E modulus of elasticity (wet)		
- longitudinal	GPa	11
- transversal	GPa	9
Bending strength (wet)	MPa	≥24
Resistance (Charpy test)	According to EN 179-1:2010	
- longitudinal	kJ/m ²	4,3
- transversal	kJ/m ²	3,1
HYGROMETRICAL PROPERTIES		
Natural humidity	%	10 ÷ 15
Max water absorption (wet over dry)	%	≤25
Moisture movement – Relative humidity change from 30% to 90%		
- longitudinal	mm/m	0,7
- transversal	mm/m	0,8
THERMAL AND WATER VAPOUR PROPERTIES		
Vapor resistance factor, μ – according to EN 12572:2016	---	49
Thermal conductivity – according to EN 12664:2002	W/mK	0,42
Thermal expansion coefficient – according to EN 10545-8:2014		
- longitudinal	1/°C	1,71•10-6
- transversal	1/°C	0,58•10-6



	Unit of measure	Value
OTHER PROPERTIES		
Superior calorific power	MJ/kg	≤2,0
Fire rating class	According to EN 13501-1	A2 s1 d0
Freeze-thaw performance		RL ≥ 0,75
Durability classification	According to EN 12467:2018	category A
Strength classification	According to EN 12467:2018	class 5
Impact resistance	NF F31-129: 2013	Pass
Hard body impact resistance	ETAG 034-1:2012	Pass
Determination of the sound coefficient absorption in reverberation room	UNI EN ISO 354: 2003	No reverberation effect
Cyclic pressure and depression test (10 ⁵ number of cycles)	-----	No deformation or variation in performance
CE marked product according to	---	EN12467

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SILBONIT SAFE CRYSTAL (Anti-graffiti transparent acrylic treatment)

	Unit of measure	Value
STANDARD DIMENSIONS** AND GEOMETRY		
Length	mm	2500 3000 3050
Width	mm	1200 1250
Thickness		5-6-8-10-12
Tollerances on nominal dimensions	Classification according to EN 12467:2018	Level 1
- on length	mm	± 2
- on width	mm	± 1
- on straightness of edges	%	0,1
- on squareness of edges	mm/m	2
- on thickness for smooth sheets	mm	± 0,5
Nominal weight	kg/m ²	9 (t=5mm) 10,8 (t=6mm) 14,4 (t=8mm) 18,0 (t=10mm) 21,6 (t=12mm)
PHYSICAL PROPERTIES		
Density (dry)	kg/m ³	1600 ± 50
PROPRIETA' MECCANICHE		
E modulus of elasticity (dry)		
- longitudinal	GPa	14
- transversal	GPa	12
E modulus of elasticity (wet)		
- longitudinal	GPa	11
- transversal	GPa	9
Bending strength (wet)	MPa	≥24
Resistance (Charpy test)	According to EN 179-1:2010	
- longitudinal	kJ/m ²	4,3
- transversal	kJ/m ²	3,1
HYGROMETRICAL PROPERTIES		
Natural humidity	%	10 ÷ 15
Max water absorption (wet over dry)	%	≤25
Moisture movement – Relative humidity change from 30% to 90%		
- longitudinal	mm/m	0,7
- trasversal	mm/m	0,8
THERMAL AND WATER VAPOUR PROPERTIES		
Vapor resistance factor, μ – according to EN 12572:2016	---	49
Thermal conductivity – according to EN 12664:2002	W/mK	0,42
Thermal expansion coefficient – according to EN 10545-8:2014		
- longitudinal	1/°C	1,71•10-6
- transversal	1/°C	0,58•10-6



	Unit of measure	Value
OTHER PROPERTIES		
Superior calorific power	MJ/kg	≤2,0
Fire rating class	According to EN 13501-1	A2 s1 d0
Freeze-thaw performance		RL ≥ 0,75
Durability classification	According to EN 12467:2018	category A
Strength classification	According to EN 12467:2018	class 5
Resistance to humid atmospheres containing sulfur dioxide according to UNI EN ISO 3231: 1999	(1)Blistering "n(S _m)" (2)Rusting "R _i " (3)Delamination	0(S0) 0 0
Corrosion resistance in salt spray test according to UNI EN ISO 9227: 2017 (1500 h)	(1)Blistering "n(S _m)" (2)Rusting "R _i " (3)Delamination	0(S0) 0 0
Impact resistance	NF F31-129: 2013	Pass
Hard body impact resistance	ETAG 034-1:2012	Pass
Determination of the sound coefficient absorption in reverberation room	UNI EN ISO 354: 2003	No reverberation effect
Cyclic pressure and depression test (10 ⁵ number of cycles)	-----	No deformation or variation in performance
Determination of light reflection factor according to ISO 9050: 2003	Average "ρ _v " value	76%
Wet-scrub resistance and cleanability	UNI EN ISO 11998:2006 UNI EN 13300:2002	Class 1
CE marked product according to	---	EN12467

- (1) "n" is the bubbles q.ty and start from 2 (min. q.ty) to 5 (max. q.ty).
 "S_m" is the bubbles dimension and start from S₂(min. dim.) to S₅(max. dim.).
 (2) "R_i" start from 0 (min.) to 5 (max).
 (3) "Delamination rate" start from 0 (min.) to 5 (max).

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SILBONIT SAFE SPECTRA (coloured acrylic treatment)

	Unit of measure	Value
STANDARD DIMENSIONS** AND GEOMETRY		
Length	mm	2500 3000 3050
Width	mm	1200 1250
Thickness		5-6-8-10-12
Tollerances on nominal dimensions	Classification according to EN 12467:2018	Level 1
- on length	mm	± 2
- on width	mm	± 1
- on straightness of edges	%	0,1
- on squareness of edges	mm/m	2
- on thickness for smooth sheets	mm	± 0,5
Nominal weight	kg/m ²	9 (t=5mm) 10,8 (t=6mm) 14,4 (t=8mm) 18,0 (t=10mm) 21,6 (t=12mm)
PHYSICAL PROPERTIES		
Peso specifico allo stato secco	kg/m ³	1600 ± 50
PROPRIETA' MECCANICHE		
E modulus of elasticity (dry)		
- longitudinal	GPa	14
- transversal	GPa	12
E modulus of elasticity (wet)		
- longitudinal	GPa	11
- transversal	GPa	9
Bending strength (wet)	MPa	≥24
Resistance (Charpy test)	According to EN 179-1:2010	
- longitudinal	kJ/m ²	4,3
- transversal	kJ/m ²	3,1
HYGROMETRICAL PROPERTIES		
Natural humidity	%	10 ÷ 15
Max water absorption (wet over dry)	%	≤25
Moisture movement – Relative humidity change from 30% to 90%		
- longitudinal	mm/m	0,7
- transversal	mm/m	0,8
THERMAL AND WATER VAPOUR PROPERTIES		
Vapor resistance factor, μ – according to EN 12572:2016	---	49
Thermal conductivity – according to EN 12664:2002	W/mK	0,42
Thermal expansion coefficient – according to EN 10545-8:2014		
- longitudinal	1/°C	1,71•10-6
- transversal	1/°C	0,58•10-6



	Unit of measure	Value
OTHER PROPERTIES		
Superior calorific power	MJ/kg	≤2,0
Fire rating class	According to EN 13501-1	A2 s1 d0
Freeze-thaw performance		RL ≥ 0,75
Durability classification	According to EN 12467:2018	category A
Strength classification	According to EN 12467:2018	class 5
Impact resistance	NF F31-129: 2013	Pass
Hard body impact resistance	ETAG 034-1:2012	Pass
Determination of the sound coefficient absorption in reverberation room	UNI EN ISO 354: 2003	No reverberation effect
Cyclic pressure and depression test (10 ⁵ number of cycles)	-----	No deformation or variation in performance
Determination of light reflection factor according to ISO 9050: 2003	Average "ρ _v " value	76%
CE marked product according to	---	EN12467

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SILBONIT SAFE PIGMENTA (Anti-graffiti coloured acrylic treatment)

	Unit of measure	Value
STANDARD DIMENSIONS** AND GEOMETRY		
Length	mm	2500 3000 3050
Width	mm	1200 1250
Thickness		5-6-8-10-12
Tollerances on nominal dimensions	Classification according to EN 12467:2018	Level 1
- on length	mm	± 2
- on width	mm	± 1
- on straightness of edges	%	0,1
- on squareness of edges	mm/m	2
- on thickness for smooth sheets	mm	± 0,5
Nominal weight	kg/m ²	9 (t=5mm) 10,8 (t=6mm) 14,4 (t=8mm) 18,0 (t=10mm) 21,6 (t=12mm)
PHYSICAL PROPERTIES		
Density (dry)	kg/m ³	1600 ± 50
PROPRIETA' MECCANICHE		
E modulus of elasticity (dry)		
- longitudinal	GPa	14
- transversal	GPa	12
E modulus of elasticity (wet)		
- longitudinal	GPa	11
- transversal	GPa	9
Bending strength (wet)	MPa	≥24
Resistance (Charpy test)	According to EN 179-1:2010	
- longitudinal	kJ/m ²	4,3
- transversal	kJ/m ²	3,1
HYGROMETRICAL PROPERTIES		
Natural humidity	%	10 ÷ 15
Max water absorption (wet over dry)	%	≤25
Moisture movement – Relative humidity change from 30% to 90%		
- longitudinal	mm/m	0,7
- transversal	mm/m	0,8
THERMAL AND WATER VAPOUR PROPERTIES		
Vapor resistance factor, μ – according to EN 12572:2016	---	49
Thermal conductivity – according to EN 12664:2002	W/mK	0,42
Thermal expansion coefficient – according to EN 10545-8:2014		
- longitudinal	1/°C	1,71•10-6
- transversal	1/°C	0,58•10-6



	Unit of measure	Value
OTHER PROPERTIES		
Superior calorific power	MJ/kg	≤2,0
Fire rating class	According to EN 13501-1	A2 s1 d0
Freeze-thaw performance		RL ≥ 0,75
Durability classification	According to EN 12467:2018	category A
Strength classification	According to EN 12467:2018	class 5
Resistance to humid atmospheres containing sulfur dioxide according to UNI EN ISO 3231: 1999	(1)Blistering "n(S _m)" (2)Rusting "R _i " (3)Delamination	0(S0) 0 0
Corrosion resistance in salt spray test according to UNI EN ISO 9227: 2017 (1500 h)	(1)Blistering "n(S _m)" (2)Rusting "R _i " (3)Delamination	0(S0) 0 0
Impact resistance	NF F31-129: 2013	Pass
Hard body impact resistance	ETAG 034-1:2012	Pass
Determination of the sound coefficient absorption in reverberation room	UNI EN ISO 354: 2003	No reverberation effect
Cyclic pressure and depression test (10 ⁵ number of cycles)	-----	No deformation or variation in performance
Determination of light reflection factor according to ISO 9050: 2003	Average "ρ _v " value	76%
Wet-scrub resistance and cleanability	UNI EN ISO 11998:2006 UNI EN 13300:2002	Class 1
CE marked product according to	---	EN12467

- (1) "n" is the bubbles q.ty and start from 2 (min. q.ty) to 5 (max. q.ty).
 "S_m" is the bubbles dimension and start from S₂ (min. dim.) to S₅ (max. dim.).
 (2) "R_i" start from 0 (min.) to 5 (max).
 (3) "Delamination rate" start from 0 (min.) to 5 (max).

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SILBONIT SAFE FANCY MATT

(Printed with inorganic inks and protected with transparent matt anti-graffiti acrylic painting)

	Unit of measure	Value
STANDARD DIMENSIONS** AND GEOMETRY		
Length	mm	2500 3000 3050
Width	mm	1200 1250
Thickness		5-6-8-10-12
Tolerances on nominal dimensions	Classification according to EN 12467:2018	Level 1
- on length	mm	± 2
- on width	mm	± 1
- on straightness of edges	%	0,1
- on squareness of edges	mm/m	2
- on thickness for smooth sheets	mm	± 0,5
Nominal weight	kg/m ²	9 (t=5mm) 10,8 (t=6mm) 14,4 (t=8mm) 18,0 (t=10mm) 21,6 (t=12mm)
PHYSICAL PROPERTIES		
Density (dry)	kg/m ³	1600 ± 50
MECHANICAL PROPERTIES		
E modulus of elasticity (dry)		
- longitudinal	GPa	14
- transversal	GPa	12
E modulus of elasticity (wet)		
- longitudinal	GPa	11
- transversal	GPa	9
Bending strength (wet)	MPa	≥24
Resistance (Charpy test)	According to EN 179-1:2010	
- longitudinal	kJ/m ²	4,3
- transversal	kJ/m ²	3,1
HYGROMETRICAL PROPERTIES		
Natural humidity	%	10 ÷ 15
Max water absorption (wet over dry)	%	≤25
Moisture movement – Relative humidity change from 30% to 90%		
- longitudinal	mm/m	0,7
- transversal	mm/m	0,8



	Unit of measure	Value
THERMAL AND WATER VAPOUR PROPERTIES (untreated boards)		
Vapor resistance factor, μ – according to EN 12572:2016	---	49
Thermal conductivity – according to EN 12664:2002	W/mK	0,42
Thermal expansion coefficient – according to EN 10545-8:2014		
- longitudinal	1/°C	1,71•10-6
- transversal	1/°C	0,58•10-6
OTHER PROPERTIES		
Superior calorific power	MJ/kg	≤2,0
Fire rating class	According to EN 13501-1	A2 s1 d0
Freeze-thaw performance		RL ≥ 0,75
Durability classification	According to EN 12467:2018	category A
Strength classification	According to EN 12467:2018	class 5
Resistance to humid atmospheres containing sulfur dioxide according to UNI EN ISO 3231: 1999	(1)Blistering “n(S _m)” (2)Rusting “R _i ” (3)Delamination	0(S0) 0 0
Corrosion resistance in salt spray test according to UNI EN ISO 9227: 2017 (1500 h)	(1)Blistering “n(S _m)” (2)Rusting “R _i ” (3)Delamination	0(S0) 0 0
Impact resistance	NF F31-129: 2013	Pass
Hard body impact resistance	ETAG 034-1:2012	Pass
Determination of the sound coefficient absorption in reverberation room	UNI EN ISO 354: 2003	No reverberation effect
Cyclic pressure and depression test (10 ⁵ number of cycles)	-----	No deformation or variation in performance
Determination of light reflection factor according to ISO 9050: 2003	Average “ρ _v ” value	76%
Wet-scrub resistance and cleanability	UNI EN ISO 11998:2006 UNI EN 13300:2002	Class 1
CE marked product according to	---	EN12467

(1) “n” is the bubbles q.ty and start from 2 (min. q.ty) to 5 (max. q.ty).

“S_m” is the bubbles dimension and start from S₂ (min. dim.) to S₅ (max. dim.).

(2) “R_i” start from 0 (min.) to 5 (max).

(3) “Delamination rate” start from 0 (min.) to 5 (max).

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SILBONIT SAFE FANCY GLOSSY

(Printed with inorganic inks and protected with transparent glossy anti-graffiti acrylic painting)

	Unit of measure	Value
STANDARD DIMENSIONS** AND GEOMETRY		
Length	mm	2500 3000 3050
Width	mm	1200 1250
Thickness		5-6-8-10-12
Tolerances on nominal dimensions	Classification according to EN 12467:2018	Level 1
- on length	mm	± 2
- on width	mm	± 1
- on straightness of edges	%	0,1
- on squareness of edges	mm/m	2
- on thickness for smooth sheets	mm	± 0,5
Nominal weight	kg/m ²	9 (t=5mm) 10,8 (t=6mm) 14,4 (t=8mm) 18,0 (t=10mm) 21,6 (t=12mm)
PHYSICAL PROPERTIES		
Density (dry)	kg/m ³	1600 ± 50
MECHANICAL PROPERTIES		
E modulus of elasticity (dry)		
- longitudinal	GPa	14
- transversal	GPa	12
E modulus of elasticity (wet)		
- longitudinal	GPa	11
- transversal	GPa	9
Bending strength (wet)	MPa	≥24
Resistance (Charpy test)	According to EN 179-1:2010	
- longitudinal	kJ/m ²	4,3
- transversal	kJ/m ²	3,1
HYGROMETRICAL PROPERTIES		
Natural humidity	%	10 ÷ 15
Max water absorption (wet over dry)	%	≤25
Moisture movement – Relative humidity change from 30% to 90%		
- longitudinal	mm/m	0,7
- transversal	mm/m	0,8

	Unit of measure	Value
THERMAL AND WATER VAPOUR PROPERTIES (untreated boards)		
Vapor resistance factor, μ – according to EN 12572:2016	---	49
Thermal conductivity – according to EN 12664:2002	W/mK	0,42
Thermal expansion coefficient – according to EN 10545-8:2014		
- longitudinal	1/°C	1,71•10-6
- transversal	1/°C	0,58•10-6
OTHER PROPERTIES		
Superior calorific power	MJ/kg	≤2,0
Fire rating class	According to EN 13501-1	A2 s1 d0
Freeze-thaw performance		RL ≥ 0,75
Durability classification	According to EN 12467:2018	category A
Strength classification	According to EN 12467:2018	class 5
Resistance to humid atmospheres containing sulfur dioxide according to UNI EN ISO 3231: 1999	(1)Blistering “n(S _m)” (2)Rusting “R _i ” (3)Delamination	0(S0) 0 0
Corrosion resistance in salt spray test according to UNI EN ISO 9227: 2017 (1500 h)	(1)Blistering “n(S _m)” (2)Rusting “R _i ” (3)Delamination	0(S0) 0 0
Impact resistance	NF F31-129: 2013	Pass
Hard body impact resistance	ETAG 034-1:2012	Pass
Determination of the sound coefficient absorption in reverberation room	UNI EN ISO 354: 2003	No reverberation effect
Cyclic pressure and depression test (10 ⁵ number of cycles)	-----	No deformation or variation in performance
Determination of light reflection factor according to ISO 9050: 2003	Average “ρ _v ” value	76%
Wet-scrub resistance and cleanability	UNI EN ISO 11998:2006 UNI EN 13300:2002	Class 1
CE marked product according to	---	EN12467

(1) “n” is the bubbles q.ty and start from 2 (min. q.ty) to 5 (max. q.ty).

“S_m” is the bubbles dimension and start from S₂ (min. dim.) to S₅ (max. dim.).

(2) “R_i” start from 0 (min.) to 5 (max).

(3) “Delamination rate” start from 0 (min.) to 5 (max).

** On request are available smaller dimensions.

If not otherwise specified the tests are in accordance to EN 12467.

Please refer to the latest Technical Data Sheet available in the download area at:

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SILBONIT SAFE are asbestos free double pressed and autoclaved flat boards with smoothed surface and rectified edges. They are through colored, reinforced with mineralized cellulose fibers and with a fiberglass mesh applied to the back. **SILBONIT SAFE** boards are CE marked according to EN 12467.

Technical Data Sheet (rev.0 del 12/04/2023)

SILBONIT SAFE CORE (Transparent matt anti-graffiti acrylic painting treatment)

	Unit of measure	Value
STANDARD DIMENSIONS** AND GEOMETRY		
Length	mm	2500 3000 3050
Width	mm	1200 1250
Thickness		5-6-8-10-12
Tolerances on nominal dimensions	Classification according to EN 12467:2018	Level 1
- on length	mm	± 2
- on width	mm	± 1
- on straightness of edges	%	0,1
- on squareness of edges	mm/m	2
- on thickness for smooth sheets	mm	± 0,5
Nominal weight	kg/m ²	9 (t=5mm) 10,8 (t=6mm) 14,4 (t=8mm) 18,0 (t=10mm) 21,6 (t=12mm)
PHYSICAL PROPERTIES		
Density (dry)	kg/m ³	1600 ± 50
MECHANICAL PROPERTIES		
E modulus of elasticity (dry)		
- longitudinal	GPa	14
- transversal	GPa	12
E modulus of elasticity (wet)		
- longitudinal	GPa	11
- transversal	GPa	9
Bending strength (wet)	MPa	≥24
Resistance (Charpy test)	According to EN 179-1:2010	
- longitudinal	kJ/m ²	4,3
- transversal	kJ/m ²	3,1
HYGROMETRICAL PROPERTIES		
Natural humidity	%	10 ÷ 15
Max water absorption (wet over dry)	%	≤25
Moisture movement – Relative humidity change from 30% to 90%		
- longitudinal	mm/m	0,7
- transversal	mm/m	0,8

	Unit of measure	Value
THERMAL AND WATER VAPOUR PROPERTIES (untreated boards)		
Vapor resistance factor, μ – according to EN 12572:2016	---	49
Thermal conductivity – according to EN 12664:2002	W/mK	0,42
Thermal expansion coefficient – according to EN 10545-8:2014		
- longitudinal	1/°C	1,71•10-6
- transversal	1/°C	0,58•10-6
OTHER PROPERTIES		
Superior calorific power	MJ/kg	≤2,0
Fire rating class	According to EN 13501-1	A2 s1 d0
Freeze-thaw performance		RL ≥ 0,75
Durability classification	According to EN 12467:2018	category A
Strength classification	According to EN 12467:2018	class 5
Resistance to humid atmospheres containing sulfur dioxide according to UNI EN ISO 3231: 1999	(1)Blistering “n(S _m)” (2)Rusting “R _i ” (3)Delamination	0(S0) 0 0
Corrosion resistance in salt spray test according to UNI EN ISO 9227: 2017 (1500 h)	(1)Blistering “n(S _m)” (2)Rusting “R _i ” (3)Delamination	0(S0) 0 0
Impact resistance	NF F31-129: 2013	Pass
Hard body impact resistance	ETAG 034-1:2012	Pass
Determination of the sound coefficient absorption in reverberation room	UNI EN ISO 354: 2003	No reverberation effect
Cyclic pressure and depression test (10 ⁵ number of cycles)	-----	No deformation or variation in performance
Determination of light reflection factor according to ISO 9050: 2003	Average “p _v ” value	76%
Wet-scrub resistance and cleanability	UNI EN ISO 11998:2006 UNI EN 13300:2002	Class 1
CE marked product according to	---	EN12467

(1) “n” is the bubbles q.ty and start from 2 (min. q.ty) to 5 (max. q.ty).

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