

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

Technical Data Sheet (rev.5 del 12/04/2023)

**SILBONIT NATURALE** (untreated boards)

	Unit of measure	Value
<b>STANDARD DIMENSIONS** AND GEOMETRY</b>		
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 <sup>2</sup>	9 (t=5mm) 10,8 (t=6mm) 14,4 (t=8mm) 18,0 (t=10mm) 21,6 (t=12mm)
<b>PHYSICAL PROPERTIES</b>		
Density (dry)	kg/m <sup>3</sup>	1600 ± 50
<b>MECHANICAL PROPERTIES</b>		
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	≥18
Resistance (Charpy test)	According to EN 179-1:2010	
- longitudinal	kJ/m <sup>2</sup>	4,3
- transversal	kJ/m <sup>2</sup>	3,1



	Unit of measure	Value
<b>HYGROMETRICAL PROPERTIES</b>		
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
<b>THERMAL AND WATER VAPOUR PROPERTIES</b>		
Vapor resistance factor, $\mu$ – 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 <sup>-6</sup>
- transversal	1/°C	0,58•10 <sup>-6</sup>
<b>OTHER PROPERTIES</b>		
Superior calorific power	MJ/kg	≤1,3
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 4
CE marked product according to	---	EN12467

\*\* On request are available smaller dimensions.

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

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Technical Data Sheet (rev.4 del 12/04/2023)

**SILBONIT HYDRO** (transparent hydrophobic treatment)

	Unit of measure	Value
<b>STANDARD DIMENSIONS** AND GEOMETRY</b>		
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 <sup>2</sup>	9 (t=5mm) 10,8 (t=6mm) 14,4 (t=8mm) 18,0 (t=10mm) 21,6 (t=12mm)
<b>PHYSICAL PROPERTIES</b>		
Density (dry)	kg/m <sup>3</sup>	1600 ± 50
<b>MECHANICAL PROPERTIES</b>		
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 <sup>2</sup>	4,3
- transversal	kJ/m <sup>2</sup>	3,1



	Unit of measure	Value
<b>HYGROMETRICAL PROPERTIES</b>		
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
<b>THERMAL AND WATER VAPOUR PROPERTIES (untreated boards)</b>		
Vapor resistance factor, $\mu$ – 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 <sup>-6</sup>
- transversal	1/°C	0,58•10 <sup>-6</sup>
<b>OTHER PROPERTIES</b>		
Superior calorific power	MJ/kg	≤1,3
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
CE marked product according to	---	EN12467

\*\* On request are available smaller dimensions.

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Technical Data Sheet (rev.4 del 12/04/2023)

## SILBONIT HYDROPLUS (transparent hydrophobic treatment)

	Unit of measure	Value
<b>STANDARD DIMENSIONS** AND GEOMETRY</b>		
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 <sup>2</sup>	9 (t=5mm) 10,8 (t=6mm) 14,4 (t=8mm) 18,0 (t=10mm) 21,6 (t=12mm)
<b>PHYSICAL PROPERTIES</b>		
Density (dry)	kg/m <sup>3</sup>	1600 ± 50
<b>MECHANICAL PROPERTIES</b>		
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 <sup>2</sup>	4,3
- transversal	kJ/m <sup>2</sup>	3,1



	Unit of measure	Value
<b>HYGROMETRICAL PROPERTIES</b>		
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
<b>THERMAL AND WATER VAPOUR PROPERTIES (untreated boards)</b>		
Vapor resistance factor, $\mu$ – 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 <sup>-6</sup>
- transversal	1/°C	0,58•10 <sup>-6</sup>
<b>OTHER PROPERTIES</b>		
Superior calorific power	MJ/kg	≤1,3
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
CE marked product according to	---	EN12467

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Technical Data Sheet (rev.4 del 12/04/2023)

**SILBONIT CRYSTAL** (Anti-graffiti transparent acrylic treatment)

	Unit of measure	Value
<b>STANDARD DIMENSIONS** AND GEOMETRY</b>		
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 <sup>2</sup>	9 (t=5mm) 10,8 (t=6mm) 14,4 (t=8mm) 18,0 (t=10mm) 21,6 (t=12mm)
<b>PHYSICAL PROPERTIES</b>		
Density (dry)	kg/m <sup>3</sup>	1600 ± 50
<b>MECHANICAL PROPERTIES</b>		
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 <sup>2</sup>	4,3
- transversal	kJ/m <sup>2</sup>	3,1



	Unit of measure	Value
<b>HYGROMETRICAL PROPERTIES</b>		
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
<b>THERMAL AND WATER VAPOUR PROPERTIES (untreated boards)</b>		
Vapor resistance factor, $\mu$ – 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 <sup>-6</sup>
- transversal	1/°C	0,58•10 <sup>-6</sup>
<b>OTHER PROPERTIES</b>		
Superior calorific power	MJ/kg	≤1,3
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
Wet-scrub resistance and cleanability of coatings	UNI EN ISO 11998:2006 UNI EN 13300:2002	Class 1
CE marked product according to	---	EN12467

\*\* On request are available smaller dimensions.

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Technical Data Sheet (rev.4 del 12/04/2023)

## SILBONIT SPECTRA (coloured acrylic treatment)

	Unit of measure	Value
<b>STANDARD DIMENSIONS** AND GEOMETRY</b>		
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 <sup>2</sup>	9 (t=5mm) 10,8 (t=6mm) 14,4 (t=8mm) 18,0 (t=10mm) 21,6 (t=12mm)
<b>PHYSICAL PROPERTIES</b>		
Density (dry)	kg/m <sup>3</sup>	1600 ± 50
<b>MECHANICAL PROPERTIES</b>		
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 <sup>2</sup>	4,3
- transversal	kJ/m <sup>2</sup>	3,1



	Unit of measure	Value
<b>HYGROMETRICAL PROPERTIES</b>		
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
<b>THERMAL AND WATER VAPOUR PROPERTIES (untreated boards)</b>		
Vapor resistance factor, $\mu$ – 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 <sup>-6</sup>
- transversal	1/°C	0,58•10 <sup>-6</sup>
<b>OTHER PROPERTIES</b>		
Superior calorific power	MJ/kg	≤1,3
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
CE marked product according to	---	EN12467

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Technical Data Sheet (rev.4 del 12/04/2023)

**SILBONIT PIGMENTA** (anti-graffiti coloured acrylic treatment)

	Unit of measure	Value
<b>STANDARD DIMENSIONS** AND GEOMETRY</b>		
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 <sup>2</sup>	9 (t=5mm) 10,8 (t=6mm) 14,4 (t=8mm) 18,0 (t=10mm) 21,6 (t=12mm)
<b>PHYSICAL PROPERTIES</b>		
Density (dry)	kg/m <sup>3</sup>	1600 ± 50
<b>MECHANICAL PROPERTIES</b>		
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 <sup>2</sup>	4,3
- transversal	kJ/m <sup>2</sup>	3,1

	Unit of measure	Value
<b>HYGROMETRICAL PROPERTIES</b>		
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
<b>THERMAL AND WATER VAPOUR PROPERTIES (untreated boards)</b>		
Vapor resistance factor, $\mu$ – 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
<b>OTHER PROPERTIES</b>		
Superior calorific power	MJ/kg	≤1,3
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
Wet-scrub resistance and cleanability of coatings	UNI EN ISO 11998:2006 UNI EN 13300:2002	Class 1
CE marked product according to	---	EN12467

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Technical Data Sheet (rev.4 del 12/04/2023)

**SILBONIT FANCY MATT**

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

	Unit of measure	Value
<b>STANDARD DIMENSIONS** AND GEOMETRY</b>		
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 <sup>2</sup>	9 (t=5mm) 10,8 (t=6mm) 14,4 (t=8mm) 18,0 (t=10mm) 21,6 (t=12mm)
<b>PHYSICAL PROPERTIES</b>		
Density (dry)	kg/m <sup>3</sup>	1600 ± 50
<b>MECHANICAL PROPERTIES</b>		
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 <sup>2</sup>	4,3
- transversal	kJ/m <sup>2</sup>	3,1



	Unit of measure	Value
<b>HYGROMETRICAL PROPERTIES</b>		
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
<b>THERMAL AND WATER VAPOUR PROPERTIES (untreated boards)</b>		
Vapor resistance factor, $\mu$ – 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 <sup>-6</sup>
- transversal	1/°C	0,58•10 <sup>-6</sup>
<b>OTHER PROPERTIES</b>		
Superior calorific power	MJ/kg	≤1,3
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
Wet-scrub resistance and cleanability of coatings	UNI EN ISO 11998:2006 UNI EN 13300:2002	Class 1
Determination of scratch resistance	UNI EN ISO 1518-1:2019	Pass
CE marked product according to	---	EN12467

Other analysis performed:

Overall migration UNI EN 1186:2003 /// Surface resistance to scratching UNI EN 15186:2012, met. B /// Cold-check test for surface finishes UNI 9429:2022 /// Surface resistance to wet heat UNI EN 12721:2013 /// Surface resistance to dry heat UNI EN 12722:2013 /// Surface resistance to cold liquids UNI EN 12720:2013 /// Tendency to retain dirt UNI 9300:2020 /// Surface resistance to cold liquids (cleaning products) PTP 53:2017 Rev. 2

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Technical Data Sheet (rev.4 del 12/04/2023)

**SILBONIT FANCY GLOSSY**

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

	Unit of measure	Value
<b>STANDARD DIMENSIONS** AND GEOMETRY</b>		
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 <sup>2</sup>	9 (t=5mm) 10,8 (t=6mm) 14,4 (t=8mm) 18,0 (t=10mm) 21,6 (t=12mm)
<b>PHYSICAL PROPERTIES</b>		
Density (dry)	kg/m <sup>3</sup>	1600 ± 50
<b>MECHANICAL PROPERTIES</b>		
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 <sup>2</sup>	4,3
- transversal	kJ/m <sup>2</sup>	3,1



	Unit of measure	Value
<b>HYGROMETRICAL PROPERTIES</b>		
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
<b>THERMAL AND WATER VAPOUR PROPERTIES (untreated boards)</b>		
Vapor resistance factor, $\mu$ – 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
<b>OTHER PROPERTIES</b>		
Superior calorific power	MJ/kg	≤1,3
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
Wet-scrub resistance and cleanability of coatings	UNI EN ISO 11998:2006 UNI EN 13300:2002	Class 1
Determination of scratch resistance	UNI EN ISO 1518-1:2019	Pass
CE marked product according to	---	EN12467

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**SILBONIT SURFACE** are asbestos free double pressed and autoclaved flat boards. They are reinforced with mineralized cellulose fibers and through colored, with bushhammered surface and rectified edges. **SILBONIT SURFACE** boards are CE marked according to EN 12467:2018.  
 Technical Data Sheet (rev.4 del 12/04/2023)

**SILBONIT Surface Hydro** (transparent hydrophobic treatment)

	Unit of measure	Value
<b>STANDARD DIMENSIONS** AND GEOMETRY</b>		
Length	mm	2500 3000 3050
Width	mm	1200 1220
Thickness		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 8-10 mm for smooth sheets	mm	+0,5 - 0,6
- on thickness 12 mm for smooth sheets	mm	+0,5 - 0,9
Nominal weight	kg/m <sup>2</sup>	14,4 (t=8mm) 18,0 (t=10mm) 21,6 (t=12mm)
<b>PHYSICAL PROPERTIES</b>		
Density (dry)	kg/m <sup>3</sup>	1600 ± 50
<b>MECHANICAL PROPERTIES</b>		
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) – hydrophobic treated sheets	MPa	≥18
Resistance (Charpy test)	According to EN 179-1:2010	
- longitudinal	kJ/m <sup>2</sup>	4,3
- transversal	kJ/m <sup>2</sup>	3,1
<b>HYGROMETRICAL PROPERTIES</b>		
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
<b>THERMAL AND WATER VAPOUR PROPERTIES (untreated boards)</b>		
Vapor resistance factor, $\mu$ – 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 <sup>-6</sup>
- transversal	1/°C	0,58•10 <sup>-6</sup>
<b>OTHER PROPERTIES</b>		
Superior calorific power	MJ/kg	≤1,3
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 4
CE marked product according to	---	EN12467

\*\* On request are available smaller dimensions.

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

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**SILBONIT SURFACE** are asbestos free double pressed and autoclaved flat boards. They are reinforced with mineralized cellulose fibers and through colored, with bushhammered surface and rectified edges. **SILBONIT SURFACE** boards are CE marked according to EN 12467:2018.  
 Technical Data Sheet (rev.4 del 12/04/2023)

## SILBONIT Surface Hydroplus (transparent hydrophobic treatment)

	Unit of measure	Value
<b>STANDARD DIMENSIONS** AND GEOMETRY</b>		
Length	mm	2500 3000 3050
Width	mm	1200 1220
Thickness		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 8-10 mm for smooth sheets	mm	+0,5 - 0,6
- on thickness 12 mm for smooth sheets	mm	+0,5 - 0,9
Nominal weight	kg/m <sup>2</sup>	14,4 (t=8mm) 18,0 (t=10mm) 21,6 (t=12mm)
<b>PHYSICAL PROPERTIES</b>		
Density (dry)	kg/m <sup>3</sup>	1600 ± 50
<b>MECHANICAL PROPERTIES</b>		
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) – hydrophobic treated sheets	MPa	≥18
Resistance (Charpy test)	According to EN 179-1:2010	
- longitudinal	kJ/m <sup>2</sup>	4,3
- transversal	kJ/m <sup>2</sup>	3,1
<b>HYGROMETRICAL PROPERTIES</b>		
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
<b>THERMAL AND WATER VAPOUR PROPERTIES (untreated boards)</b>		
Vapor resistance factor, $\mu$ – 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 <sup>-6</sup>
- transversal	1/°C	0,58•10 <sup>-6</sup>
<b>OTHER PROPERTIES</b>		
Superior calorific power	MJ/kg	≤1,3
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 4
CE marked product according to	---	EN12467

\*\* On request are available smaller dimensions.

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

Technical Data Sheet (rev.1 del 12/04/2023)

## SILBONIT CORE

(Transparent matt anti-graffiti acrylic painting treatment)

	Unit of measure	Value
<b>STANDARD DIMENSIONS** AND GEOMETRY</b>		
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 <sup>2</sup>	9 (t=5mm) 10,8 (t=6mm) 14,4 (t=8mm) 18,0 (t=10mm) 21,6 (t=12mm)
<b>PHYSICAL PROPERTIES</b>		
Density (dry)	kg/m <sup>3</sup>	1600 ± 50
<b>MECHANICAL PROPERTIES</b>		
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 <sup>2</sup>	4,3
- transversal	kJ/m <sup>2</sup>	3,1



	Unit of measure	Value
<b>HYGROMETRICAL PROPERTIES</b>		
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
<b>THERMAL AND WATER VAPOUR PROPERTIES (untreated boards)</b>		
Vapor resistance factor, $\mu$ – 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 <sup>-6</sup>
- transversal	1/°C	0,58•10 <sup>-6</sup>
<b>OTHER PROPERTIES</b>		
Superior calorific power	MJ/kg	≤1,3
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
Determination of scratch resistance	UNI EN ISO 1518-1:2019	Pass
CE marked product according to	---	EN12467

Other analysis performed:

Overall migration UNI EN 1186:2003 /// Surface resistance to scratching UNI EN 15186:2012, met. B /// Cold-check test for surface finishes UNI 9429:2022 /// Surface resistance to wet heat UNI EN 12721:2013 /// Surface resistance to dry heat UNI EN 12722:2013 /// Surface resistance to cold liquids UNI EN 12720:2013 /// Tendency to retain dirt UNI 9300:2020 /// Surface resistance to cold liquids (cleaning products) PTP 53:2017 Rev. 2

\*\* On request are available smaller dimensions.

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

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