



# Technical guide for external façades

04.2021 - EN

# Technical specifications



## physical and chemical properties norm / test method 1000x3000 Full Size Laminam 3 CE\*

Full Size: "length and width" nominal size: 1000x3000mm size / (39.4"x118.1")	Laminam	minimum size: ≥ 1015x3030 mm full size untrimmed
full size: difference between diagonals	Laminam	not applicable
weight	Laminam	average value 7,8 kg/m <sup>2</sup>
surface quality % pieces with no visible flaws	ISO 10545-2	> 95%
water absorption	ISO 10545-3 / ASTM C373	average value ≤ 0,1%
breaking strength in N	ISO 10545-4 **	-
modulus of rupture in N / mm <sup>2</sup>	ISO 10545-4	average value 50 (sample dimensions 200x300 mm)
resistance to deep abrasion	ISO 10545-6	≤ 175 mm <sup>3</sup>
coefficient of linear thermal expansion / 10 <sup>-6</sup> /°C	ISO 10545-8	6,6 average value
resistance to thermal shock	ISO 10545-9	resistant
chemical resistance	ISO 10545-13	class: from A to B
stain resistance	ISO 10545-14	class: from 4 to 5
resistant to freeze-thaw	ISO 10545-12	resistant
fire reaction	EN 13501 (rev. 2005)	A1 - (decision 96/603/CE as amended)

\* For wall application only

\*\* Requirement UNI EN 14411 not applicable for Laminam3, Laminam3+./ The values indicated for 3+ are valid only for side length 3000 mm.

\*\*\* The unique features of Laminam products do not allow for a perfect comparison with ceramic tiles. The test results are therefore only indicative and not binding.

# Technical specifications



physical and chemical properties	norm / test method	1000x3000 Laminam 3+
1000x3000mm "length and width" nominal size/manufacturing: rectified 1000x3000mm size / (39.4"x118.1")	ISO 10545-2	max. deviation on the side +/- 0.5 mm
1000x3000mm difference between diagonals rectified 1000x3000mm size / (39.4"x118.1")	Laminam	max +/- 1,5 mm
weight	Laminam	average value 8,2 kg/m <sup>2</sup>
surface quality / % pieces with no visible flaws	ISO 10545-2	> 95%
water absorption	ISO 10545-3 / ASTM C373	average value ≤ 0,1% ***
breaking strength in N	ISO 10545-4 **	average value 700 (sample dimensions 200x300 mm)
modulus of rupture in N / mm <sup>2</sup>	ISO 10545-4	average value 50 *** (sample dimensions 200x300 mm)
resistance to deep abrasion	ISO 10545-6	≤ 175 mm <sup>3</sup>
coefficient of linear thermal expansion / 10 <sup>-6</sup> /°C	ISO 10545-8	6,6 average value ***
resistance to thermal shock	ISO 10545-9	resistant ***
chemical resistance	ISO 10545-13	class: from A to B
stain resistance	ISO 10545-14	class: from 4 to 5
resistant to freeze-thaw	ISO 10545-12	resistant ***
fire reaction	EN 13501 (rev. 2005)	A2 - s1, d0

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physical and chemical properties	norm / test method	1000x3000 Laminam 5 CE	1000x3000 Laminam 5 Lucidato CE
1000x3000mm "length and width" nominal size/manufacturing: rectified 1000x3000mm size / (39.4"x118.1")	ISO 10545-2	max. deviation on the side +/- 0,5 mm	max. deviation on the side +/- 0,5 mm
1000x3000mm difference between diagonals rectified 1000x3000mm size / (39.4"x118.1")	Laminam	max +/- 1,5 mm	max +/- 1,5 mm
weight	Laminam	average value 14,5 kg/m <sup>2</sup>	average value 14,5 kg/m <sup>2</sup>
surface quality % pieces with no visible flaws	ISO 10545-2	> 95%	> 95%
water absorption	ISO 10545-3 / ASTM C373	average value ≤ 0,1%	average value ≤ 0,1%
breaking strength in N	ISO 10545-4	average value 1100 (sample dimensions 1000x1000 mm)	average value 1100 (sample dimensions 1000x1000 mm)
modulus of rupture in N / mm <sup>2</sup>	ISO 10545-4	average value 50 (sample dimensions 1000x1000 mm)	average value 50 (sample dimensions 1000x1000 mm)
resistance to deep abrasion	ISO 10545-6	≤ 175 mm <sup>3</sup>	≤ 175 mm <sup>3</sup>
coefficient of linear thermal expansion / 10 <sup>-6</sup> /°C	ISO 10545-8	6,6 average value	6,6 average value
resistance to thermal shock	ISO 10545-9	resistant	resistant
chemical resistance	ISO 10545-13	class: from A to B	class: from A to C
stain resistance	ISO 10545-14	class: from 4 to 5	class: from 2 to 5
resistenza al gelo resistant to freeze-thaw	ISO 10545-12	resistant	resistant
fire reaction	EN 13501 (rev. 2005)	A1 - (decision 96/603/CE as amended)	A1 - (decision 96/603/CE as amended)

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# Technical specifications



physical and chemical properties	norm / test method	1200x3000 Full Size Laminam 5 CE
Full Size: "length and width" nominal size: 1200x3000mm size / (47.2"x118.1")	Laminam	minimum size: ≥ 1210x3050 mm full size untrimmed
weight	Laminam	average value 14,5 kg/m <sup>2</sup>
surface quality / % pieces with no visible flaws	ISO 10545-2	> 95%
water absorption	ISO 10545-3 / ASTM C373	average value ≤ 0,1%
breaking strength in N	ISO 10545-4	average value 1100 (sample dimensions 1000x1000 mm)
modulus of rupture in N / mm <sup>2</sup>	ISO 10545-4	average value 50 (sample dimensions 1000x1000 mm)
resistance to deep abrasion	ISO 10545-6	≤ 175 mm <sup>3</sup>
coefficient of linear thermal expansion / 10 <sup>-6</sup> /°C	ISO 10545-8	6,6 average value
resistance to thermal shock	ISO 10545-9	resistant
chemical resistance	ISO 10545-13	class: from A to B
stain resistance	ISO 10545-14	class: from 4 to 5
resistant to freeze-thaw	ISO 10545-12	resistant
fire reaction	EN 13501 (rev. 2005)	A1 - (decision 96/603/CE as amended)

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# Technical specifications



## physical and chemical properties norm / test method 1200x3000 Laminam 5+

1200x3000mm “length and width” nominal size/manufacturing: rectified 1200x3000mm size / (47.2"x118.1")	ISO 10545-2	max. deviation on the side +/- 0,5 mm
1200x3000mm difference between diagonals rectified 1200x3000mm size / (39.4"x118.1")	Laminam	max +/- 1,5 mm
weight	Laminam	average value 14,9 kg/m <sup>2</sup>
surface quality / % pof tiles with no visibl flaws	ISO 10545-2	> 95%
water absorption	ISO 10545-3 / ASTM C373	average value ≤ 0,1% ***
breaking strength in N	ISO 10545-4	average value 1100 *** (sample dimensions 1000x1000 mm)
modulus of rupture in N / mm <sup>2</sup>	ISO 10545-4	average value 50 *** (sample dimensions 1000x1000 mm)
resistance to deep abrasion	ISO 10545-6	≤ 175 mm <sup>3</sup>
coefficient of linear thermal expansion / 10 <sup>-6</sup> /°C	ISO 10545-8	6,6 average value ***
resistance to thermal shock	ISO 10545-9	resistant ***
chemical resistance	ISO 10545-13	class: from A to B
stain resistance	ISO 10545-14	class: from 4 to 5
resistant to freeze-thaw	ISO 10545-12	resistant ***
fire reaction	EN 13501 (rev. 2005)	A2 - s1, d0

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# Technical specifications



physical and chemical properties	norm / test method	1620x3240 Full Size Laminam 5 €	1620x3240 Full Size Laminam 5 Lucidato €
Full Size: "length and width" nominal size: 1620x3240mm size / (63.7"x 127.5")	Laminam	minimum size: ≥ 1630x3250mm full size untrimmed	minimum size: ≥ 1630x3250mm full size untrimmed
weight	Laminam	average value 14,5 kg/m <sup>2</sup>	average value 14,5 kg/m <sup>2</sup>
surface quality / % pieces with no visible flaws	ISO 10545-2	> 95%	> 95%
water absorption	ISO 10545-3 / ASTM C373	average value ≤ 0,1%	average value ≤ 0,1%
breaking strength in N	ISO 10545-4	average value 1100 (sample dimensions 1000x1000 mm)	average value 1100 (sample dimensions 1000x1000 mm)
modulus of rupture in N / mm <sup>2</sup>	ISO 10545-4	average value 50 (sample dimensions 1000x1000 mm)	average value 50 (sample dimensions 1000x1000 mm)
resistance to deep abrasion	ISO 10545-6	≤ 175 mm <sup>3</sup>	≤ 175 mm <sup>3</sup>
coefficient of linear thermal expansion / 10 <sup>-6</sup> /°C	ISO 10545-8	6,6 average value	6,6 average value
resistance to thermal shock	ISO 10545-9	resistant	resistant
chemical resistance	ISO 10545-13	class: from A to B	class: from A to C
stain resistance	ISO 10545-14	class: from 4 to 5	class: from 2 to 5
resistant to freeze-thaw	ISO 10545-12	resistant	resistant
fire reaction	EN 13501 (rev. 2005)	A1 (decision 96/603/CE as amended)	A1 (decision 96/603/CE as amended)

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# Technical specifications



physical and chemical properties	norm / test method	1620x3240 Laminam 5+ C€	1620x3240 Laminam 5+ Lucidato C€
1620x3240mm “length and width” nominal size/ manufacturing: rectified 1620x3240mm size / (39.4"x118.1")	ISO 10545-2	max. deviation on the side +/- 0,5 mm	max. deviation on the side +/- 0,5 mm
1620x3240mm difference between diagonals rectified 1620x3240mm size / (39.4"x118.1")	Laminam	max +/- 1,5 mm	max +/- 1,5 mm
weight	Laminam	average value 14,9 kg/m <sup>2</sup>	average value 14,9 kg/m <sup>2</sup>
surface quality / % pieces with no visible flaws	ISO 10545-2	> 95%	> 95%
water absorption	ISO 10545-3 / ASTM C373	average value ≤ 0,1% ***	average value ≤ 0,1% ***
breaking strength in N	ISO 10545-4	average value 1100 *** (sample dimensions 1000x1000 mm)	average value 1100 *** (sample dimensions 1000x1000 mm)
modulus of rupture in N / mm <sup>2</sup>	ISO 10545-4	average value 50 *** (sample dimensions 1000x1000 mm)	average value 50 *** (sample dimensions 1000x1000 mm)
resistance to deep abrasion	ISO 10545-6	≤ 175 mm <sup>3</sup>	≤ 175 mm <sup>3</sup>
coefficient of linear thermal expansion / 10 <sup>-6</sup> /°C	ISO 10545-8	6,6 average value ***	6,6 average value ***
resistance to thermal shock	ISO 10545-9	resistant ***	resistant ***
chemical resistance	ISO 10545-13	class: from A to B	class: from A to C
stain resistance	ISO 10545-14	class: from 4 to 5	class: from 2 to 5
resistant to freeze-thaw	ISO 10545-12	resistant ***	resistant ***
fire reaction	EN 13501 (rev. 2005)	A2 - s1, d0	A2 - s1, d0

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# Technical specifications



physical and chemical properties	norm / test method	1620x3240 Full Size Laminam 12+	1620x3240 Full Size Laminam 12+ Lucidato
Full Size: "length and width" nominal size: 1620x3240mm size / (63.7"x 127.5")	Laminam	minimum size: ≥ 1630x3250mm full size untrimmed	minimum size: ≥ 1630x3250mm full size untrimmed
weight	Laminam	average value 30 kg/m <sup>2</sup>	average value 30 kg/m <sup>2</sup>
surface quality / % pieces with no visible flaws	ISO 10545-2	> 95%	> 95%
water absorption	ISO 10545-3 / ASTM C373	average value ≤ 0,1% ***	average value ≤ 0,1% ***
breaking strength in N	ISO 10545-4	> 4000 *** (sample dimensions 400x800 mm)	> 4000 *** (sample dimensions 400x800 mm)
modulus of rupture in N / mm <sup>2</sup>	ISO 10545-4	average value 50 *** (sample dimensions 400x800 mm)	average value 50 *** (sample dimensions 400x800 mm)
resistance to deep abrasion	ISO 10545-6	≤ 175 mm <sup>3</sup>	≤ 175 mm <sup>3</sup>
coefficient of linear thermal expansion / 10 <sup>-6</sup> /°C	ISO 10545-8	6,6 average value ***	6,6 average value ***
resistance to thermal shock	ISO 10545-9	resistant ***	resistant ***
chemical resistance	ISO 10545-13	class: from A to B	class: from A to C
stain resistance	ISO 10545-14	class: from 4 to 5	class: from 2 to 5
resistant to freeze-thaw	ISO 10545-12	resistant ***	resistant ***
fire reaction	EN 13501 (rev. 2005)	A2 - s1,d0	A2 - s1,d0

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# Technical specifications



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Full Size: "length and width" nominal size: 1620x3240mm size / (63.7"x 127.5")	Laminam	minimum size: ≥ 1630x3250mm full size untrimmed	minimum size: ≥ 1630x3250mm full size untrimmed
weight	Laminam	average value 50,4 kg/m <sup>2</sup>	average value 50,4 kg/m <sup>2</sup>
surface quality / % pieces with no visible flaws	ISO 10545-2	> 95%	> 95%
water absorption	ISO 10545-3 / ASTM C373	average value ≤ 0,1% ***	average value ≤ 0,1% ***
breaking strength in N	ISO 10545-4	> 10000 *** (sample dimensions 400x800 mm)	> 10000 *** (sample dimensions 400x800 mm)
modulus of rupture in N / mm <sup>2</sup>	ISO 10545-4	average value 50 *** (sample dimensions 400x800 mm)	average value 50 *** (sample dimensions 400x800 mm)
resistance to deep abrasion	ISO 10545-6	≤ 175 mm <sup>3</sup>	≤ 175 mm <sup>3</sup>
coefficient of linear thermal expansion / 10 <sup>-6</sup> /°C	ISO 10545-8	6,6 average value ***	6,6 average value ***
resistance to thermal shock	ISO 10545-9	<i>resistant</i> ***	<i>resistant</i> ***
chemical resistance	ISO 10545-13	class: from A to B	class: from A to C
stain resistance	ISO 10545-14	class: from 4 to 5	class: from 2 to 5
resistant to freeze-thaw	ISO 10545-12	<i>resistant</i> ***	<i>resistant</i> ***
fire reaction	EN 13501 (rev. 2005)	A2 - s1,d0	A2 - s1,d0

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We are  
designers  
of our own  
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