



Lume

COLLECTION SUMMARY

SIZE (cm)	THICKNESS	GROUP	USE
6x24	10 mm	Bla GL EN14411/G	FLOOR/WALL
6x24	14 mm	Bla GL EN14411/G	WALL
10x10	10 mm	Bla GL EN14411/G	FLOOR/WALL
10x10	11,5 mm	Bla GL EN14411/G	FLOOR/WALL
21x18,2	9,5 mm	Bla GL EN14411/G	FLOOR/WALL

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Share Capital Euro 102,232,000 fully paid-up VAT and Intrastat Code IT00611410374 Tax Code and Modena companies register reg. no. 00611410374 R.E.A.
Modena No. 49219 Meccanografico No. MO 041028 Company subject to the direction and coordination of Mohawk Industries, Inc.

Lume

Compliant with standard EN 14411:2016 annex G group Bla GL

Compliant with standard ISO 13006:2018 annex G group Bla GL

TECHNICAL FEATURES		TESTING METHOD	ESTABLISHED LIMITS			AVERAGE TYPICAL VALUE
DIMENSIONAL PROPERTIES AND SURFACE QUALITY						
			Nominal side length N (cm) 7≤N<15	Nominal side length N (cm) N≥15		
	LENGTH AND WIDTH (*)	ISO 10545-2				Compliant
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	NOT RECTIFIED		±0,9 mm	±0,6 %	±2,0 mm	
	THICKNESS					Compliant
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	NOT RECTIFIED		±0,5 mm	±5 %	±0,5 mm	
	STRAIGHTNESS OF SIDES					Compliant
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	NOT RECTIFIED		±0,75 mm	±0,5 %	±1,5 mm	
	RECTANGULARITY					Compliant
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	NOT RECTIFIED		±0,75 mm	±0,5 %	±2,0 mm	
	SURFACE FLATNESS C.C.- E.C.- W.					Compliant
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	NOT RECTIFIED		±0,75 mm	±0,5 %	±2,0 mm	
SURFACE QUALITY			≥95 %			Compliant

PHYSICAL AND CHEMICAL PROPERTIES				
	WATER ABSORPTION	EN ISO 10545-3	Eb ≤ 0,5% (maximum individual value 0,6%)	Eb ≤ 0,5%

	FLEXURAL STRENGTH (S) AND MODULUS OF RUPTURE (R)	EN ISO 10545-4	---	---
			Thickness ≥ 7,5 mm: S ≥ 1.300 N R ≥ 35 N/mm² (min individual value 32 N/mm²)	Thickness ≥ 7,5 mm: S ≥ 1300 N R ≥ 35 N/mm²

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	CRAZING RESISTANCE	EN ISO 10545-11	Pass according to EN ISO 10545-1(EN 14411:2016) Required (ISO 13006:2018)	Complies with the standards
	LINEAR THERMAL EXPANSION COEFFICIENT	EN ISO 10545-8	Declared value (EN 14411:2016) Test method available (ISO 13006:2018)	$\leq 9 \left(\frac{x(10)^{-6}}{^{\circ}\text{C}} \right)$
	THERMAL SHOCK RESISTANCE	EN ISO 10545-9	Pass according to EN ISO 10545-1 (EN 14411:2016)** Test method available (ISO 13006:2018)	Complies with the standards
	FROST RESISTANCE*****	EN ISO 10545-12	Pass according to EN ISO 10545-1 (EN 14411:2016) Required (ISO 13006:2018)	Complies with the standards
	REACTION TO FIRE	---	Class A1 or Class A1 FL*****	Floor/wall: class A1 FL/ A1

				Wall: Class A1

	COLOR RESISTANCE TO LIGHT EXPOSURE	DIN 51094	The samples must not show any appreciable color variations	Complies with the standards
	CHEMICAL RESISTANCE****	EN ISO 10545-13	Minimum B (EN 14411:2016) Minimum B (ISO 13006:2018)	A
			Declared value (EN 14411:2016) Test method available (ISO 13006:2018)	LA-LB
			Declared value (EN 14411:2016) Test method available (ISO 13006:2018)	HA-HB
	STAIN RESISTANCE	EN ISO 10545-14	Minimum Class 3 (EN 14411:2016) Minimum Class 3 (ISO 13006:2018)	Class 5

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	TECHNICAL FEATURES	STANDARDS	SIZE (cm)	THICKNESS	SURFACE	COLOR	DECLARED VALUE
	Resistance to surface abrasion (only for tiles intended use on floors)	INTERNAL TEST METHOD	6x24	10 mm	Lux	BEIGE, BLACK, BLUE, BONE, CARAMEL, CHINA, EMERALD, FOREST, GREEN, GREIGE, MUSK, OCEAN, OFF WHITE, PINK, TURQUOISE, WHITE	Class F
			10x10	10 mm	Lux	BLUE, BONE, CARAMEL, EMERALD, GREEN, OCEAN, TURQUOISE, WHITE	Class F
			21x18,2	9,5 mm	Lux	BLUE, GREEN, WHITE	Class F

* The deviation, in percent, of the average size for each tile (2 or 4 sides) from the work size. Regarding the deviation between nominal size and work size, the work size shall be chosen, for non-modular tiles, so that the difference between the work size and the nominal size is: $\pm 2\%$ (max 5 mm)

** See Table 2 EN 14411:2016 for uses where it is applicable

*** High Performance product

**** Resistance to household chemicals and pool salts (from A to C); Resistance to low-concentration acids and bases (from LA to LC); Resistance to high-concentration acids and bases (from HA to HC)

c.c. Centre curvature, related to diagonal calculated from the work sizes

e.c. Edge curvature, related to the corresponding work sizes

w. Warpage, related to diagonal calculated from the work sizes

***** Not valid for interior wall tiles

***** This requirement refers to the ceramic tiles only

Class D: Tiles suitable only for residential bathrooms and bedrooms; any type of abrasion must be avoided

Class E: Tiles suitable for any room of a house except for entrance areas and kitchens. Low stress abrasive wear

Class F: Tiles suitable for any room of a house without direct access from the outside or access not protected by doormats. Average stress abrasive wear

Class G: Materials suitable for rooms subject to medium-heavy abrasion, such as detached houses and light-traffic commercial buildings

Class H: Materials suitable for situations of relatively hard abrasion in environments without protection against scratching, both public and private

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ASTM COMPLIANT				
TECHNICAL FEATURES	STANDARDS	ESTABLISHED LIMITS		AVERAGE TYPICAL VALUE
NOMINAL SIZE	ASTM C499	MIN - 3,00%	MAX 2,00%	Compliant
CALIBER RANGE	ASTM C499	MIN - 0,25% or -0,03 in (-0,8 mm) (1)		Compliant
		MAX 0,25% or 0,03 (0,8 mm) (1)		
WEDGING	ASTM C502	MIN - 0,25% or -0,03 in (-0,8 mm)		Compliant
		MAX 0,25% or 0,03 (0,8 mm)		
WARPAGE EDGE	ASTM C485	MIN - 0,40% or -0,05 in (-1,3 mm) (3) or -1,8 mm (4)		Compliant
		MAX 0,40% or 0,05 in (1,3 mm) (3) or 1,8 mm (4)		
WARPAGE DIAGONAL	ASTM C485	MIN - 0,40% or -0,07 in (-1,8 mm)		Compliant
		MAX 0,40% or 0,07 in (1,8 mm)		
WATER ABSORPTION	ASTM C373	MIN 0,00%	MAX 0,50%	Compliant
THICKNESS (2)	ASTM C499	Range: 0,040 in (1,02 mm)		Not affected
COLOR UNIFORMITY (8)	ASTM C609	V0 - 3 Judds		Compliant
BREAKING STRENGTH	ASTM C648	Average ≥ 275 lbf (1,22 kN)		≥ 400
		Individual ≥ 250 lbf (1,11 kN)		
THERMAL SHOCK (5)	ASTM C484	Passed		Compliant
RESISTANCE TO FREEZE/THAW CYCLING (6)	ASTM C1026	Declared value		No damage
STAIN RESISTANCE	ASTM 1378	As reported		Not affected
CHEMICAL RESISTANCE	ASTM C650	As reported		Not affected
CRAZING RESISTANCE (5)	ASTM C424	Passed		Not affected
BOND STRENGTH	ASTM C482	≥ 50 psi (0,34 Mpa)		Compliant

(1) Whichever is less.

(2) May not apply to textured surfaces or tiles with uneven back patterns.

(3) Whichever is less, for tiles up to 24" (610 mm) on any side

(4) Applies to tiles larger than 24" (610 mm) on any side

(5) Glazed tiles only

(6) When installation subject to freeze/thaw conditions.

(7) For level interior spaces expected to be walked upon when wet (see section 6.2.2.1.10)

(8) Class V0 Tile Only

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Antislippery Properties (only for tiles intended for floor use)											
					DIN EN 16165 Annex B (ex DIN 51130); ASR A1.	DIN EN 16165 Annex A (ex DIN 51097) DGUV Information 207-006	D.M. N. 236 14/6/89 BCR-A	ANSI 326.3:2021 D-COF	BS EN 16165:2021 Annex C (ex BS 7976-2:2002 / BS EN 13036-4:2011) - UK PTV	UNE EN 16165 Annex C (ex UNE 41901:2017 EX - DB SUA) - Spain PTV	AS 4586-2013 Annex A Australian PTV
Established limits					from R9 to R13	from A to C	$\mu > 0,40$	Interior Dry (ID) $\geq$ 0.42 dry, Interior Wet (IW) $\geq$ 0.42 wet, Interior Wet+ (IW+): Declared value, Exterior Wet (EW): Declared value	0 - 24 Slippery; 25 - 35 Moderate slipperiness; 36+ Low risk of slipping	from class 0 to class 3	from P0 to P5
Surface	Size (cm) Thickness	Color	Group	Catalog code	DIN EN 16165 Annex B (ex DIN 51130); ASR A1.	DIN EN 16165 Annex A (ex DIN 51097) DGUV Information 207-006	D.M. N. 236 14/6/89 BCR-A	ANSI 326.3:2021 D-COF	BS EN 16165:2021 Annex C (ex BS 7976-2:2002 / BS EN 13036-4:2011) - UK PTV	UNE EN 16165 Annex C (ex UNE 41901:2017 EX - DB SUA) - Spain PTV	AS 4586-2013 Annex A Australian PTV
Lux	6x24 10 mm	BEIGE	Bla GL	MA9K	---	---	---	---	---	---	---
Lux	6x24 10 mm	BLACK	Bla GL	M6RP	---	---	---	---	---	---	---
Lux	6x24 10 mm	BLUE	Bla GL	M6RR	---	---	---	---	---	---	---
Lux	6x24 10 mm	BONE	Bla GL	MP8Y	---	---	---	---	---	---	---
Lux	6x24 10 mm	CARAMEL	Bla GL	MP8Z	---	---	---	---	---	---	---
Lux	6x24 10 mm	CHINA	Bla GL	MA9L	---	---	---	---	---	---	---
Lux	6x24 10 mm	EMERALD	Bla GL	MP90	---	---	---	---	---	---	---
Lux	6x24 10 mm	FOREST	Bla GL	MA9M	---	---	---	---	---	---	---
Lux	6x24 10 mm	GREEN	Bla GL	M6RQ	---	---	---	---	---	---	---
Lux	6x24 10 mm	GREIGE	Bla GL	M6RT	---	---	---	---	---	---	---
Lux	6x24 10 mm	MUSK	Bla GL	M6RS	---	---	---	---	---	---	---
Lux	6x24 10 mm	OCEAN	Bla GL	MP8X	---	---	---	---	---	---	---
Lux	6x24 10 mm	OFF WHITE	Bla GL	MA9P	---	---	---	---	---	---	---
Lux	6x24 10 mm	PINK	Bla GL	MA9Q	---	---	---	---	---	---	---
Lux	6x24 10 mm	TURQUOISE	Bla GL	MA9N	---	---	---	---	---	---	---
Lux	6x24 10 mm	WHITE	Bla GL	M6RN	---	---	---	---	---	---	---
Lux	10x10 10 mm	BLUE	Bla GL	MQ80	---	---	---	---	---	---	---
Lux	10x10 10 mm	BONE	Bla GL	MQ7Y	---	---	---	---	---	---	---
Lux	10x10 10 mm	CARAMEL	Bla GL	MQ7Z	---	---	---	---	---	---	---
Lux	10x10 10 mm	EMERALD	Bla GL	MQ81	---	---	---	---	---	---	---
Lux	10x10 10 mm	GREEN	Bla GL	MQ7W	---	---	---	---	---	---	---
Lux	10x10 10 mm	OCEAN	Bla GL	MQ7V	---	---	---	---	---	---	---
Lux	10x10 10 mm	TURQUOISE	Bla GL	MQ7U	---	---	---	---	---	---	---
Lux	10x10 10 mm	WHITE	Bla GL	MQ7X	---	---	---	---	---	---	---

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Surface	Size (cm) Thickness	Color	Group	Catalog code	DIN EN 16165 Annex B (ex DIN 51130); ASR A1.	DIN EN 16165 Annex A (ex DIN 51097) DGUV Information 207-006	D.M. N. 236 14/6/89 BCR-A	ANSI 326.3:2021 D-COF	BS EN 16165:2021 Annex C (ex BS 7976-2:2002 / BS EN 13036-4:2011) - UK PTV	UNE EN 16165 Annex C (ex UNE 41901:2017 EX - DB SUA) - Spain PTV	AS 4586-2013 Annex A Australian PTV
Lux	21x18,2 9,5 mm	BLUE	Bla GL	MFFF	---	---	---	---	---	---	---
Lux	21x18,2 9,5 mm	GREEN	Bla GL	MFFG	---	---	---	---	---	---	---
Lux	21x18,2 9,5 mm	WHITE	Bla GL	MFFE	---	---	---	---	---	---	---