BISAZZA

OPUS ROMANO - OPUS ROMANO MATT

OPUS ROMANO

1.a	DESCRIPTION
	A sintered glass enamel mosaic, consisting of 12x12 mm square tesserae, 4 mm thick, mounted on paper. The mosaic contains pre- and post-consumer recycled material: for more information, see paragraph 9.

OPUS ROMANO MATT

1.b	DESCRIPTION
	A sintered glass enamel mosaic, consisting of 12x12 mm square tesserae, 4 mm thick, mounted on paper; MATT version tiles are opaque and non-slip. This treatment takes place during the production process. The mosaic contains pre- and post-consumer recycled material: for more information, see paragraph 9.

OPUS ROMANO

2.a	APPLICATIONS	
A	INTERIOR WALLS	Walls and ceilings in general, of any shape and size
B	FLOORS	Tiling of floors in very high-traffic pedestrian areas for long periods of time, with abrasive soil/debris (for example: public areas, like shopping centres, airports, hotel entrances). For exteriors, we recommend the MATT version, used by itself or with blends.
C	- EXTERIOR WALLS - SWIMMING POOLS - HIGH-HUMIDITY AREAS (shower, Turkish bath, bio sauna, etc.)	All colours are suitable for the applications indicated, except for Oro bianco (ORO 12.6).

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2.b	APPLICATIONS	
A	INTERIOR WALLS	Walls and ceilings in general, of any shape and size
B	FLOORS only in the 24 standard* colours	Residential and commercial floors, as in offices, reception areas, boutiques, bathrooms. Especially indicated for outdoor use, by itself or in blends with the standard version.
C	- EXTERIOR WALLS - SWIMMING POOLS - HIGH-HUMIDITY AREAS (shower, Turkish bath, bio sauna, etc.) only in the 24 standard* colours	Suitable for all these environments Especially indicated for wet/dry areas, pool borders and damp areas with barefoot traffic.

* Regarding the pastel colours not included in the list of standard colours, we recommend using them only as wall cladding.

3	WEIGHTS AND MEASUREMENTS	
	Size	11.5x11.5 mm (+/- 0,5)
	Mounting	paper
	Sheet dimensions	293x293 mm
	Number of tiles/sheet	529
	Thickness	4 mm
	Joint	~1.2 mm
	Weight	7.5 kg/sqm
	Quantity/carton	1.29 sqm
	Sheets/carton	15

Note: the variations in size of Oro tiles fall within the tolerance limits of a production process that includes several manual processes, and, therefore, are considered distinctive product features.

OPUS ROMANO

4.a	TECHNICAL CHARACTERISTICS			
	Description	**Test**	**Established limits**	**Result**
	Water absorption	ISO 10545 - 3	E ≤ 0.5%	< 0.5
	Frost resistance	ISO 10545 - 12		resistant
	Colour resistance to fading	DIN 51094		resistant
	Resistance to chemical attack	ISO 10545 - 13		resistant
	Stain resistance	ISO 10545-14		resistant
	Resistance to thermal shock	ANSI A 137.2-2012	+15 / +71°C	resistant
	Wear resistance (PEI)	ISO 10545 - 7	Class 0-5	Class 5
	Slip resistance	DIN 51097	A(12°-18°) B(18°-24°) C(+24°)	A

OPUS ROMANO MATT

4.b	TECHNICAL CHARACTERISTICS			
	Description	**Test**	**Established limits**	**Result**
	Water absorption	ISO 10545 - 3	E ≤ 0.5%	< 0.5
	Frost resistance	ISO 10545 - 12		resistant
	Colour resistance to fading	DIN 51094		resistant
	Resistance to chemical attack	ISO 10545 - 13		resistant
	Stain resistance	ISO 10545 - 14		resistant
	Resistance to thermal shock	ANSI A 137.2-2012	+15/+71°C	resistant
	Wear resistance (PEI)	ISO 10545 - 7	Class 0-5	Class 3
	Slip resistance	DIN 51097	A(12°-18°) B(18°-24°) C(+24°)	A+B+C
		DIN 51130	R9 - R13	R10
		B.C.R Rep. CEC. 6/81	0.40≤ μ <0.74 ≥0.74	0.86
		ENV 12633:2006	Class 0-3 (Rd≥45)	Class 2 (43)
		BS 7976	>36 (low)	Wet 46 - 47

OPUS ROMANO ORO (12.1 - 12.6)

4.c	TECHNICAL CHARACTERISTICS			
	Description	**Test**	**Established limits**	**Result**
	Resistance to chemical attack	ISO 10545 - 13	-	resistant
	Scratch resistance hardness (Mohs scale)	EN 101:1991 Mohs	Class 1 - 10	Class 4

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OPUS ROMANO MATT in blends

4.d	TECHNICAL CHARACTERISTICS		percentage of OPUS ROMANO MATT in blends		
			25%	50%	75%
	Slip resistance	DIN 51097	A 17°	A+B 21°	A+B+C 24°
		DIN 51130	R10	R10	R10

5	STRENGTHS
	- countless possible combinations to create custom blends and decorative effects - easy to clean - lightweight and thin, ideal for renovation projects - suitable for very high-traffic pedestrian areas (standard version, not MATT) - pleasant to the touch - Opus Romano Matt is ideal for paving damp areas (saunas, pool decks, etc.) where there is barefoot traffic - reduced size makes it suitable for tiling curved surfaces: convex surfaces, 30 mm radius - concave surfaces, 20 mm radius

6	INSTALLATION
A	For proper installation, the substrate must be a perfectly smooth even surface, and must be cured, dry, sound and stable. - Screed or plaster substrates: we recommend Bisazza Ad Hoc+Ultra* adhesive - Other types of substrates: we recommend Bisazza eGlue adhesive - For swimming pool installation, we recommend the Bisazza Pool Installation System (Ad Hoc+Ultra adhesive and Pool eGrout epoxy grout) - For installation on swimming pools with salt water or thermal spring water, use epoxy products only: we recommend the Bisazza Epoxy Pool Installation System (epoxy eGlue adhesive + Pool eGrout epoxy grout) and waterproofing with specific products - When laying, use a 3.5 mm toothed trowel. N.B. Attrition tends to wear out the trowel; it is crucial to maintain the proper thickness of the teeth for the entire installation period, restoring it with the flex tool, if necessary. - Thoroughly remove any traces of adhesive before grouting - For installation of all the Opus Romano decorations, Bisazza recommends always using the Epoxy Installation Kit (eGlue epoxy adhesive + Fillgel Plus epoxy grout); for swimming pool installation of these collections, use the Bisazza Epoxy Pool Installation System (eGlue epoxy adhesive + Pool eGrout epoxy grout). Average consumption Bisazza Ad Hoc: 1.25 kg/sqm (two coats of skimming included) Average consumption Bisazza Ultra: 0.8 kg/sqm Average consumption Bisazza eGlue: 1.6 kg/sqm (please add 0.9 Kg/sqm for the skimming) * except for any specific standards or codes enforced by an individual country.
B	Grouting: For the best results and performance, use Bisazza Fillgel Plus. The grout colour will affect the final aesthetic appearance of the installed tiles; this is why, given the characteristics of Opus Romano mosaic tile, we do not recommend using Fillgel Plus 1104 neutro base. For pools and outdoor use, Bisazza recommends Pool eGrout epoxy grout. Average consumption Bisazza Fillgel Plus: 1.2 kg/sqm Average consumption Bisazza Pool eGrout: 1.1 kg/sqm **For further information on installation procedures, consult the installation manual and product technical data sheets.**

7	MAINTENANCE
	Use ordinary cleaning products (except those containing hydrofluoric acid or phosphoric acid), for maintenance and cleaning of glass mosaic surfaces, taking care to rinse thoroughly with water. Alkaline detergents should be used cautiously and quickly rinsed off with water. Cleaning products should never be used on hot surfaces or those directly exposed to sunlight. Avoid using abrasive tools and high-pressure water jets (pressure washing).

8	WARNINGS
	Prior to installation, all materials should be stored in a dry place sheltered from rain and humidity. For information on use with fibreglass or steel swimming pools, contact Bisazza's technical office: installation.department@bisazza.com

9	TABLE OF CONTENTS OF RECYCLED MATERIAL IN THE COLOURS IN THE COLLECTION, VALID FOR THE PURPOSES OF LEED CLASSIFICATION OF BUILDINGS	
	Colour code	% Pre-consumer float and sheet glass	% Post-consumer bottle and ashtray glass
	01	78	17
	02	79	20
	04*	79	20
	05	79	20
	07*	79	20
	09*	79	20
	11	78	19
	16	78	19
	19	79	19
	20*	79	19
	22	79	19
	34	79	19
	36	79	20
	39	79	20
	40*	79	20
	42*	79	20
	44	79	20
	45	79	20
	47*	79	19
	48*	79	19
	53*	79	20
	54*	79	20
	55	79	19
	57	79	19
	60*	79	19
	62	79	19
	74*	79	20
	75	79	20

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76	79	19
77	79	19
78	79	20
81*	79	20
82*	79	20
84	79	20
85	79	20
87*	79	20
88*	79	20
91	79	20
96*	79	19
98	79	19
99	79	19
103	79	19
104	79	19
106	79	19
110	79	20
111	79	20
113*	79	20
116	79	20
117*	79	20
118*	79	20
128*	79	20
130*	79	20
131*	79	20
133*	79	20

* Valid also for the MATT version