

DATA SHEET
Reference:
DS-APT-0423

Atria® 20mm Porcelain Tiles

Technical datasheet

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e: technical@raft.co
w: raft.co

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STONE

RANGE	COLOUR	PRODUCT CODE & SIZES			
		600x600	600x900	300x1200	600x1200
Florence	Millstone	402014	-	-	-
	Graphite	402013	-	-	-
	Silver	402030	-	-	-
Modica	Fawn	408023	-	-	-
	Ferro	408024	-	-	-
	Pewter	408025	-	-	-
Novara	Silver	415013	-	-	-
	Cameo	-	461101	-	-
	Ember	-	461104	-	-
	Ashen	-	461107	-	-
Modena	Slate	-	461110	-	-
	String	-	-	-	407024
	Ivory	-	-	-	407023
	Smoke	-	-	-	407025
Taranto	Steel	-	-	-	408023
	Hessian	-	-	-	408024
	Charcoal	-	-	-	408025
Asti	Carbon	410010	-	-	410015
	Mushroom	410011	-	-	410016
	Smoke	410012	-	-	410017
	Talc	410013	-	-	410018
	Taupe	410014	-	-	410019
Roma	Earth	404026	-	-	-
	Lead	404027	404037	404017	-
	Natural	404029	404041	404018	-
	Copper	404025	-	-	-
Lucca	Pearl	419005	-	-	419001
	Ivory	419006	-	-	419002
	Beige	419007	-	-	419003
	Grey	419008	-	-	419004

CONCRETE

RANGE	COLOUR	PRODUCT CODE & SIZES
		600x600
Venice	Anthracite	406011
	Beige	406012
	Grey	406013
	Mocha	406014
Pavia	Cloud	416010
	Ochre	416011
	Urban	416012
	Shadow	416013

TERRAZZO

RANGE	COLOUR	PRODUCT CODE & SIZES
		600x600
Padua	Thunder	417010

For LRV ratings please reach out to a member of the team.



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PACKAGING AND WEIGHTS

TILE SIZE	THICKNESS	BOX SPECIFICATION			PALLET SPECIFICATION		
		PIECES/ BOX	SQM/ BOX	Kg/ BOX	TILES/ PALLET	SQM/ PALLET	Kg/ PALLET
225 x 225	20mm	12	0.720	≈67.54	45	51.84	≈1034.82
225 x 454	20mm	6	0.810	≈37.99	42	14.58	≈810.43
300 x 600	20mm	3	0.720	≈25.33	40	8.10	≈506.52
300 x 1200	20mm	2	0.720	≈26.38	36	16.88	≈1519.56
600 x 600	20mm	2	0.563	≈50.65	30	45.36	≈5673.02
450 x 900	20mm	2	0.960	≈33.77	27	17.28	≈810.43
400 x 1200	20mm	2	0.720	≈33.77	24	25.92	≈949.73
600 x 900	20mm	2	2.880	≈28.49	18	5.47	≈303.91
750 x 750	20mm	1	1.080	≈135.07	42	51.84	≈512.85
600 x 1200	20mm	1	0.540	≈33.77	15	28.80	≈1013.04
300 x 2400	20mm	1	1.440	≈28.75	36	12.26	≈759.78
900 x 900	20mm	1	0.810	≈45.02	18	25.92	≈911.74
1200 x 1200	20mm	1	0.613	≈39.99	20	34.02	≈1595.54
1200 x 2400	20mm	1	0.608	≈33.77	9	32.40	≈3039.12

SLIP RESISTANCE

TECHNICAL FEATURES	SPECIFICATION	VALUES REQUIRED	ATRIA® VALUES
Dynamic slider	BCRA	Test method available	>0.4
Static slider	ASTM C1028	Test method available	-
Inclined platform	DIN 51130	Test method available	R11
Pendulum test value (PTV) - dry	BS EN 14231	36+	72
Pendulum test value (PTV) - wet	BS EN 14231	36+	65

WORKING SIZE AND WEIGHT

TILE SIZE	ACTUAL RECTIFIED SIZE	M2/TILE	KG/TILE
600 x 600	596 x 596	0.3600	≈16.88
600 x 900	596 x 1195	0.5400	≈25.33
300 x 1200	297 x 1195	0.3600	≈16.88
600 x 1200	596 x 1195	0.7200	≈33.77



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REGULARITY CHARACTERISTICS

TECHNICAL FEATURES	SPECIFICATION	VALUES REQUIRED		ATRIA® VALUES
Length and width	ISO 0545-2	±0.6%	±2mm	≥3400N
Thickness	ISO 0545-2	±5.0%	±0.5mm	≥2720N
Squareness	ISO 0545-2	±0.5%	±2mm	≤1.8mm
Straightness of sides	ISO 0545-2	±0.5%	±1.5mm	≥13mm
Surface fitness	ISO 0545-2	±0.5%	±2mm	≤7.0%

STRUCTURAL CHARACTERISTICS

TECHNICAL FEATURES	SPECIFICATION	VALUES REQUIRED		ATRIA® VALUES
Water absorption	ISO 0545-3	±0.5%		±0.1%
	ASTM C373			In accordance
Breaking strength	ISO 0545-4	≥1300N		≥7,288N
Modulus of rupture	ISO 0545-4	≥35mm ³		≥45 N/mm ³
Breaking load class	EN1339	±0.5%		U11
				T11

SURFACE CHARACTERISTICS

TECHNICAL FEATURES	SPECIFICATION	VALUES REQUIRED		ATRIA® VALUES
Resistance to deep abrasion	ISO 0545-6	≤175mm ³		≤155mm ³

THERMAL AND HYGROMETRIC CHARACTERISTICS

TECHNICAL FEATURES	SPECIFICATION	VALUES REQUIRED		ATRIA® VALUES
Coefficient of linear thermal expansion	ISO 0545-8	Test method available		<7 x 10 ⁻⁶ °C ⁻¹
Thermal shock resistance	ISO 0545-9	Test method available		Guaranteed
Frost resistance	ISO 0545-12	Required		In accordance

CHEMICAL CHARACTERISTICS

TECHNICAL FEATURES	SPECIFICATION	VALUES REQUIRED		ATRIA® VALUES
Chemical resistance	ISO 0545-13	Test method available		Guaranteed
Stain resistance	ISO 0545-14	Test method available		Guaranteed



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APPLICATION

By mounting on adjustable pedestal systems or solid concrete bases. If mounting on adjustable pedestals over 100mm in height, an optional fiberglass mesh is available upon request.

INSTALLATION INFORMATION

By mounting on adjustable pedestal systems or solid concrete bases. If mounted on adjustable pedestals over 100mm in height, an optional fibreglass mesh is available upon request.

HOW RAAFT® OVERCOMES WIND UPLIFT WITH ATRIA® PORCELAIN TILES

To overcome uplift challenges on roof terraces, Raaft® has developed wind uplift resistance tiles. Products that claim to be resistant to wind uplift must meet BS EN 1991-1-4:2005++A1:2010 Eurocode 1 regulations, so we put out tiles and clips to the test. Following the principles of BS 14437:2004, the tests were conducted by independent testers (BRE Group) on both types of clip, fixing 20mm thick Atria® + Porcelain tiles with two clips per tile attaching them to the Raaft® Aluminium Joists. Tests were also carried out on the Pedestal Joist Connectors.

Testing applied an uplift pressure of 4536N/m² and the products were tested to destruction, no partial safety factors were used

The results were as follows:

- Using stainless steel clips, the characteristic wind uplift resistance per clip was 738.1N
- Using nylon clips the characteristic wind uplift per clip was 51.6N
- By also fixing the tile with Formoa 017FE hybrid polymer adhesive the indicative wind uplift resistance per clip was 2943N
- The pedestal joist connector returned a wind uplift resistance of 71.0

The clip and groove wind uplift resistance system is also featured on our Terrafina Composite, Wood polymer Decking and Farrino Porcelain Decking

Wind uplift clip



To view the full BRE Report, please visit raaft.co/storage/uploads/wind-uplift-test-bre-report_kwbro.pdf

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PRODUCT FINISHES

STONE

FLORENCE



Millstone Graphite Silver

MODICA



Fawn Ferro Pewter Silver

NOVARA



Cameo Ember Ashen Slate

MODENA



String Ivory Smoke

TARANTO



Steel Hessian Charcoal

LUCCA



Pearl Beige Grey Ivory

STONE (CONTINUED)

ROMA



Earth Lead Natural Copper

ASTI



Carbon Mushroom Smoke Talc Taupe

CONCRETE

VENICE



Anthracite Beige Grey Mocha

PAVIA



Cloud Ochre Urban Shadow

TERAZZO

PADUA



Thunder



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SUSTAINABILITY

Atria® porcelain tiles are made by pressing and baking a mix of natural minerals and clays. This process creates strong and long-lasting tiles. Unlike many other materials, these tiles are eco-friendly. They don't soak up harmful chemicals or release contaminants. They're also easy to clean without needing strong chemicals.

PRODUCT MAINTENANCE

Our Atria® tiles are easy to clean and resist most chemicals. They're UV stable and only have 0.01% porosity. It's a good idea to clean them once or twice a year, depending on local weather conditions. Use a high-pressure cleaner from at least 20cm away or scrub with a mild all-purpose cleaner and water. For daily cleaning, just sweep regularly and rinse with water, a soft brush, and a mild cleaner or suds.

FIRE PROTECTION

By mounting on adjustable pedestal systems or solid concrete bases. If mounted on adjustable pedestals over 100mm in height, an optional fibreglass mesh is available upon request.

PROTECTIVE EQUIPMENT

By mounting on adjustable pedestal systems or solid concrete bases. If mounted on adjustable pedestals over 100mm in height, an optional fibreglass mesh is available upon request.

- a) Good strong safety boots/shoes to protect the feet.
- b) Protective eyewear such as safety glasses.
- c) Strong gloves to protect the hands.
- d) If using loud cutting equipment then ear plugs or defenders should be worn.

STORAGE AND HANDLING

In preparation for delivery, Atria® tiles are securely packed into cardboard boxes to ensure no movement during transit.

Depending on the size and weight of the consignment they may be palletised. Until the point of installation, the tiles should be stored fully packed in a dry environment.



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ACCESSORIES

VENICE CLIP

The genesis of our product stemmed from valuable feedback received from a domestic building grappling with water pooling issues on their porcelain tiles. After meticulous contemplation and design efforts spanning several months, the solution was crafted.

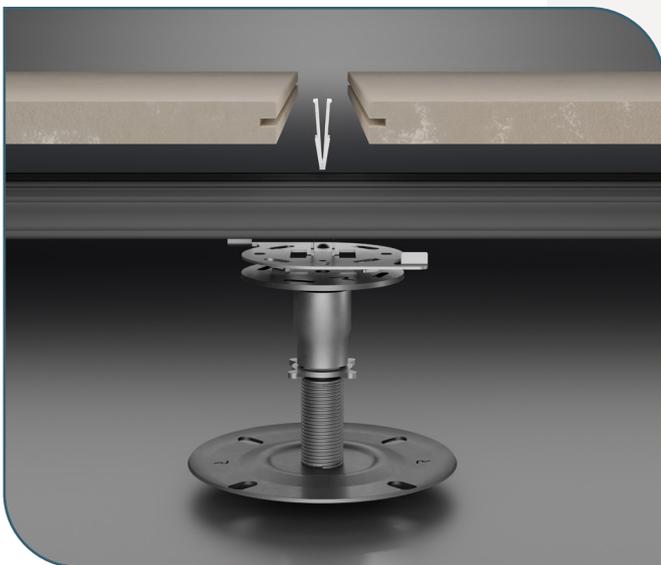
The predicament of water pooling takes on greater significance with the introduction of new materials to the UK market. Despite tiles boasting ratings of R11 or higher, the accumulation of water transforms into ice during winter, prompting the exclusion of porcelain from specifications on roof terraces nationwide.

Enter our innovative product, poised to address this challenge effectively. Raaft® now offers a solution enabling water drainage from tiles within a precise 1-hour timeframe, aligning seamlessly with NHBC 9.1.15 guidelines. According to these standards, standing water post-rain should neither exceed 5mm in depth nor cover an area surpassing 1m².

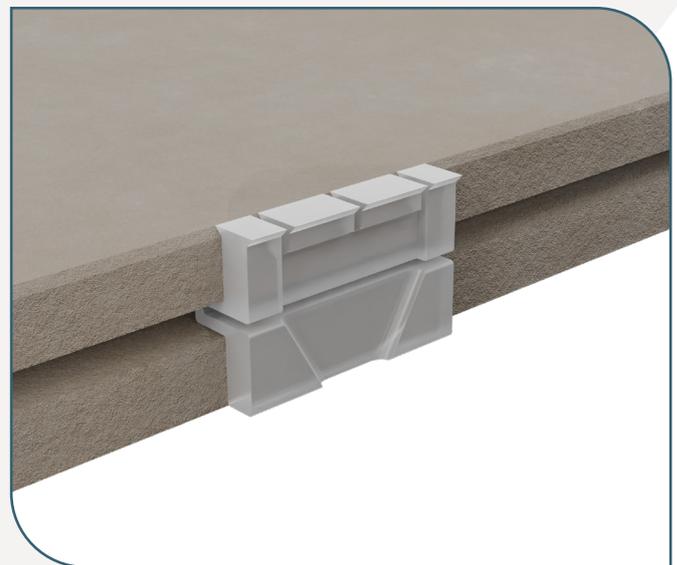
We prioritize subtlety, employing transparent materials potentially matching Raaft®'s specified tiles. The Venice clip is designed to break the surface tension of the tile, similar to a grout joint where porcelain tiles are installed on cement. When porcelain is installed onto a loose laid system the joints are exposed which meant the files fill with water due to surface tension.

The product is flush to the surface reducing the chances of feet being caught.

During installation, especially in wind uplift scenarios, our design incorporates a clip securely inserted into the groove. This not only ensures a snug fit but also acts as a protective 'buffer' between tiles, facilitating removal and reinstallation without compromising structural integrity.



Venice Clip Push – this item serves as a universal solution for all porcelain within the RAAFT® collection.



Venice Clip Uplift

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