

BRUTALIST *COLLECTION*

ORBIS

Weight	16.5 kg
Size	D 440 mm | H 160 mm
Installation	Top Mount

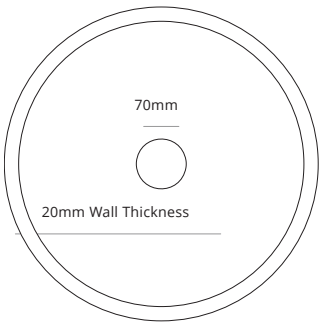
THE TRAVOLA


Wabi


Sabi

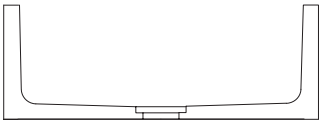
- Handmade
- UHPC (Ultra High Performance Concrete)
- Waterproof
- Matte Finish
- ECO Friendly
- Made in Lebanon





440mm Outer Diameter





160mm Height

Concrete casting is a handmade process, therefore a margin of variation can be found from one piece to another in terms of color, leveling, and aggregates dispersion/denseness. The casting process may result in some minor pinholes, and color lines that show on the surface of concrete.

TECHNICAL DATA SHEET

MECHANICAL & PHYSICAL PROPERTIES
REPORT NO: R-31023 || AUB - AMERICAN UNIVERSITY OF BEIRUT LABORATOIRES

ATTRIBUTE	SPECIFICATION	ASTM TEST STANDARD	RESULT
MATERIAL COMPOSITION	COMPOSITE MATERIAL, BINDER, CRUSHED STONE, QUARTZ	N/A	N/A
SURFACE FINISH	MOLDED, PATTERNED, FILLED, SANDED, SEALED	N/A	N/A
DENSITY KG/M (PC)	5.0X5.0X5.0 (CM)	N/A	2384 (148.82)
COMPRESSIVE STRENGTH MPA (PSI)	5.0X50X3.0 (CM)	ASTM C170	60 MPA (8702.0)
TENSILE STRENGTH MPA (PSI)	50.0X20X3.0 (CM)	ASTM D638	70 MPA (10,152)
FLEXURAL STRENGTH MPA (PSI)	50.0X20X3.0 (CM)	ASTM C880	12.6 MPA (1827.4)
TENSILE MODULUS MPA (PSI)	50.0X20X3.0 (CM)	ASTM D638	7,000 MPA
IMPACT RESISTANCE J/M	N/A	ASTM D256	20 J/M
SURFACE HARDNESS	10.0X10.0X3.0 (CM)	ASTM D2240	80 SHORE D
ABRASION RESISTANCE (USING TINIUS OLSEN WEAROMETER C.D.R)	LOSS IN THICKNES AFTER 1000 REVOLUTIONS MM (INCH)	N/A	0.25 (0.01)
ELONGATION AT BREAK	N/A	ASTM D638	5%
WATER ABSORPTION (ABSORPTION CAPACITY PERCENT BY WEIGHT)	5.0X5.0X5.0 (CM)	ASTM C97	0.4%

CHEMICAL RESISTANCE
REPORT NO: CERR-2504/11592 MLABS DUBAI || TEST METHOD: ISO 10545-13:2016: 2016 (E)

AQUEOUS TEST SOLUTIONS USED	VISUAL EXAMINATION RESULT	MINIMUM REQUIREMENTS AS PER: BS EN 14411:2012 (ANNEX G)	TEST RESULT
HOUSEHOLD CHEMICALS AMMOMIUM CHLORIDE SOLUTION-3 %	NO VISIBLE EFFECT	MINIMUM CLASS B	CLASS A (V)
SWIMMING POOL SALTS SODIUM HYPOCHLORITE SOLUTION-5 %	NO VISIBLE EFFECT	MINIMUM CLASS B	CLASS A (V)
ACIDS AND ALKALIS - LOW CONCENTRATIONS (L): HYDROCHLORIC ACID (3 %)	NO VISIBLE EFFECT	MINIMUM CLASS B	CLASS LA (V)
CITRIC ACID (100 G/L)	NO VISIBLE EFFECT	MINIMUM CLASS B	CLASS LA (V)
POTASSIUM HYDROXIDE SOLUTION (30 G/L)	NO VISIBLE EFFECT	MINIMUM CLASS B	CLASS LA (V)
ACIDS AND ALKALIS - HIGH CONCENTRATIONS (H): HYDROCHLORIC ACID (18 %)	NO VISIBLE EFFECT	MINIMUM CLASS B	CLASS HA (V)
LACTIC ACID(5 %)	NO VISIBLE EFFECT	MINIMUM CLASS B	CLASS HA (V)
POTASSIUM HYDROXIDE (100 G/L)	NO VISIBLE EFFECT	MINIMUM CLASS B	CLASS HA (V)
PENCIL TEST	REMOVED	MINIMUM CLASS B	CLASS A

UV RESISTANCE TEST
REPORT NO: CERR-2504-11591 MLABS DUBAI || TEST METHOD: ASTM G 154-16

UV RESISTANCE *ACCELERATED WEATHER TESTER AWT-1*	UV RESISTANCE OF STONIUM COMPOSITE AFTER 500 HOURS EXPOSURE LAMP UVA-340 8 H UV AT 60 (±3) °C BLACK PANEL TEMPERATURE; 0.25 H WATER SPRAY (NO LIGHT), TEMPERATURE NOT CONTROLLED; 3.75 H CONDENSATION AT 50 (±3) °C BLACK PANEL TEMPERATURE	ASTM G 154-16	**OBSERVATION** CRAZING: NONE CHALKING: NONE CRACKING & BLISTERING: NONE COLOR CHANGE: NONE

TECHNICAL DATA SHEET

MICRO BIOLOGY - SURFACE MOLD GROWTH RESISTANCE
REPORT NO: CERR-2504/11594 MLABS DUBAI || TEST METHOD: ASTM D 3273

TEST STRAINS:	ASPERGILLUS NIGER
INCUBATION TEMPERATURE:	32˚C±1˚C
HUMIDITY:	≥95%
DURATION:	4 WEEKS
TEST SAMPLE:	UNCOATED STONIUM COMPOSITE
CONTROL SAMPLE:	INDUSTRY STANDARDS

DURATION (CONTROL SAMPLE - INDUSTRY STANDARDS)	RESULT	DURATION (TEST SAMPLE - STONIUM COMPOSITE)	RESULT
WEEK 1	8	WEEK 1	10
WEEK 2	5	WEEK 2	10
WEEK 3	1	WEEK 3	10
WEEK 4	1	WEEK 4	9
RATING SYSTEM: 1= HIGH MOLD GROWTH 10= LOW MOLD GROWTH		**RATING SYSTEM:** 1= HIGH MOLD GROWTH 10= LOW MOLD GROWTH	

(VOC) VOLATILE ORGANIC COMPOUND EMISSION
REPORT NO: 2504/11593 MLABS DUBAI || TEST METHOD: ISO 16000-9

TEST METHOD		VOLATILE ORGANIC COMPOUND	CAS NUMBER	CONCENTRATION IN THE CHAMBER (MG/M3)	EMISSION RATE (MG/M2H)
		SAMPLING TIME: 24 HOURS			
PRE-CONDITIONING:	10 DAYS AT 23±1°C AND 50±5% RH PER ISO 16000-11	TVOC (C6–C16) (MG/M³)	---	<15	<40
		SAMPLING TIME: 72 HOURS			
CHAMBER VOLUME:	1.0 M³ STAINLESS STEEL	TVOC (C6–C16) (MG/M³)	---	<15	<40
		SAMPLING TIME: 24 HOURS			
AIR EXCHANGE RATE:	1.0 H-¹	TVOC (C6–C16) (MG/M³)	---	<15	<40
SURFACE AIR VELOCITY:	0.1–0.3 M/S	BENZENE (MG/M³)	---	<1	<1
SPECIMEN AREA:	0.1 M²	FORMALDEHYDE (MG/M³)	<15	<1	<1
		LEED V4 COMPLIANCE			
AIR FLOW RATE:	2.0 M³/M²·H	**COMPOUND** TVOC	**LIMIT (MG/M3)** <0.010	**RESULTS** <0.010	**COMPLIANCE** PASS
SAMPLING INTERVALS:	24, 72, AND 168 HOURS				
ANALYSIS:	TD-GC-MS USING TENAX TA TUBES	**CONCLUSION:** *The tested STONIUM COMPOSITE sample is compliant with LEEDv4 TVOC emission limits for indoor air quality. All detected VOCs, including formaldehyde and benzene, were well below detection limits*			

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