

cement tile technical specifications

product description: our encaustic cement tiles are individually hand made at our factory in marrakech, morocco using a hydraulic-press technique that dates from 150 years ago. we have made improvements to the manufacturing process to make our tiles thinner, stronger, less permeable and, of course, updated with fresh, modern designs. the tiles have two layers: a colored "face" that measures approx. 4mm and a grey cement back.

materials:

white portland cement

mable powder

pigments (both inorganic mineral pigments including iron and cobalt and chemical pigments)

we have eliminated sand (a less expensive aggregate) from our tile mix, replacing it with ground marble in order to create a harder, stronger tile. we use several silica additives to strengthen the tiles further.

how they are made: first, the pigmented face of the tile is mixed according to precise color formulas (we have over 100). the tiles are made face first, i.e., face down on the steel mold. the pattern is achieved by funneling the pigmented slurry into the sections of a brass pattern mold that fits within the steel mold. a back layer of marble and cement is then added and leveled. the tile is then pressed using a hydraulic press and 1,700 psi of pressure. the tiles are left to "rest" for a day and then are submerged into a water bath - we used filtered rain water. once fully hydrated, the tiles are placed in a humid room to dry and gain strength over a period of 3 weeks. cement tiles are not fired. their strength comes from the chemical reaction of cement with water. each order is hand inspected before being packaged for shipment.

manufacturing tolerance: length/width +/- 0.4mm; height: 0.7mm

abrasion resistance: abrasive wear index 14.2 (ASTM C 1353-96)

slip resistance (co-efficient of friction): DIN Norm - R 10 (with shoes)

DIN Norm - B (barefoot)

unpolished/dry - .88

unpolished/wet - .79

polished/dry - .88

polished/wet - .78

acid resistance: cement tiles are not resistant to acid; they should only be cleaned with pH-neutral cleaners. mild soap and water works best.

freeze/thaw tolerance: cement tiles are porous and susceptible to cracking if exposed to repeated freeze/thaw, so we do not recommend them for use outdoors in cold environments.

available sizes/shapes	tiles/box	sqft/box	m2/box	kg/box
20cm x 20cm x 1.2cm	18	7.75	.72	20.5
20cm x 23cm x 1.2cm (hex)	18	6.66	.62	17.5
30cm x 30cm x 1.5cm	8	7.75	.72	26
15cm x 15cm x 1.2cm	18	4.36	.41	12.5
10cm x 20cm x 1.2cm (plinth)	36	7.75	.72	20
30cm x 20cm x 1.5cm (lantern)	14	6.03	.56	20.5
30cm x 20cm x 1.5cm (elongated hex)	14	7.53	.70	25
12" x 8" x 1.2cm (rectangle)	14	9.33	.87	33
10cm x 10cm x 1.2cm	72	7.75	.72	20.5



production lead time: our cement tiles are individually hand made (approximately 3 minutes / tile) by our team of experienced tile makers. for custom orders, the lead time is about 5-6 weeks, including a 28-day cure/dry period.