

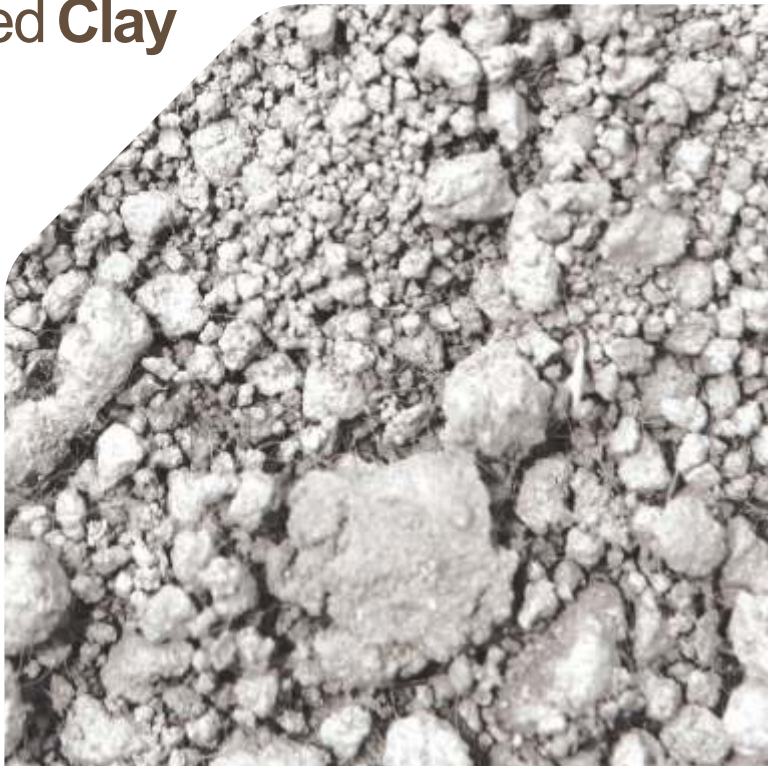


Unfired Flexi Clay **Cladding**





Modified Clay



Modified Clay Materials

Modified clay material is an amalgamation of clay and sands through an unfired patent manufacturing technology. PHOMI's products are modified soil made through a technology breakthrough with the base materials being constituted and bonded together by using only low heat temperature in its manufacturing process.

The clay is constituted with recycled materials to reduce carbon footprint, thus making it the closest pure form with the nature.

The products come with a base thickness of only 2.5 mm. They are extremely light weight, non breakable and flexible yet suitable for both exterior and interior applications. Also, the natural characteristics of the soil offer the benefits of fire retardant, breathability, non toxic, durability and recyclability features.

MCM products are patented exterior grade cladding products to suit all architectural needs; ensuring style, performance & durability for multi purpose exterior & interior requirements. MCM range of products provide its customers with the perfect combination of Eco Friendly, smooth & stylish aesthetics with superior & durable performance.





About MCMFlexi Cladding

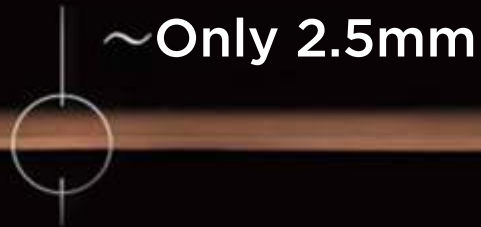
MCMFLEXI CLADDING India is a privately held company with its headquarters in Mumbai, INDIA along with a strong presence across the Nation with exclusive product display centers. MCMFLEXI Cladding proudly boasts of a patented revolutionary Cladding Technology offering High quality and Sustainable cladding products for both internal & external space.

MCMFLEXI offers most varied collection of Natural, Durable & Aesthetically designed materials holding a wide range which encompasses MCM STONE, MCM WOOD, MCM BRICK & MCM LEATHER. Best suited for External cladding, Interiors; Comprising of ceiling, flooring & furniture covering and also for grand landscaping. MCMFLEXI Products are suitable for your complete architectural needs.

The product offering is thoughtfully invented keeping in mind today's need for lightweight and fast-track construction needs as these materials are easy to install and bring natural textures to all kinds of Building structures.

We at MCM India are committed to care for our planet thereby creating a better life and a better world to live in.

Unbelievably slim!





Flexible



Tiles Crack



Shatter Proof



Freeze-Thaw Resistance



Fire Retardant



Durable



Water-Resistance

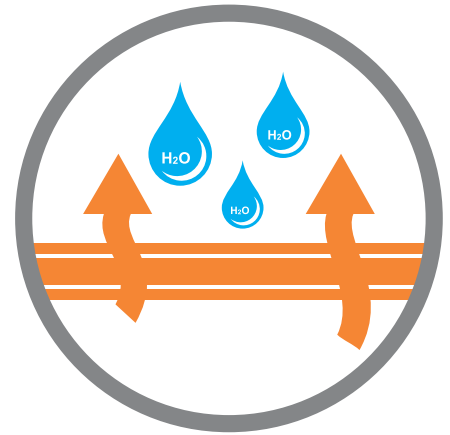
Breathable

Moisture Regulating Material

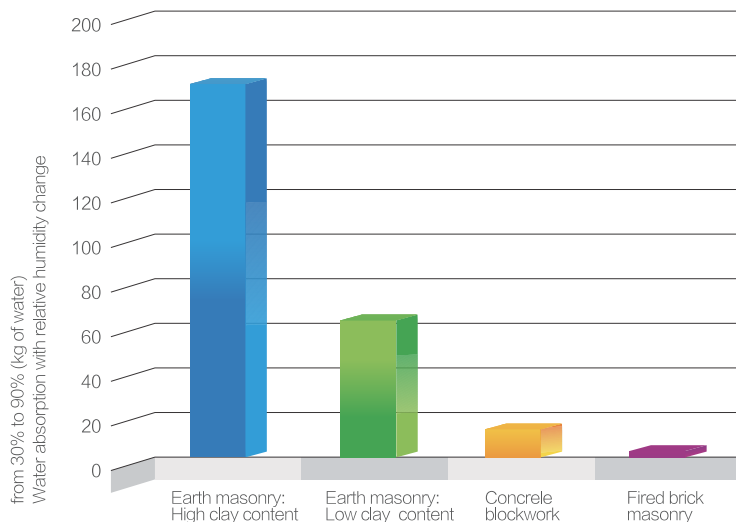
MCM, modified clay materials are made from unfired clay. The most attractive are their functional properties, principally, that of breathability and known abilities to regulate Relative Humidity (RH). Next to air tightness and embodied energy, breathability is possibly the most critical consideration in building design.

Unfired Clay can absorb and desorb indoor humidity faster than any other building materials.

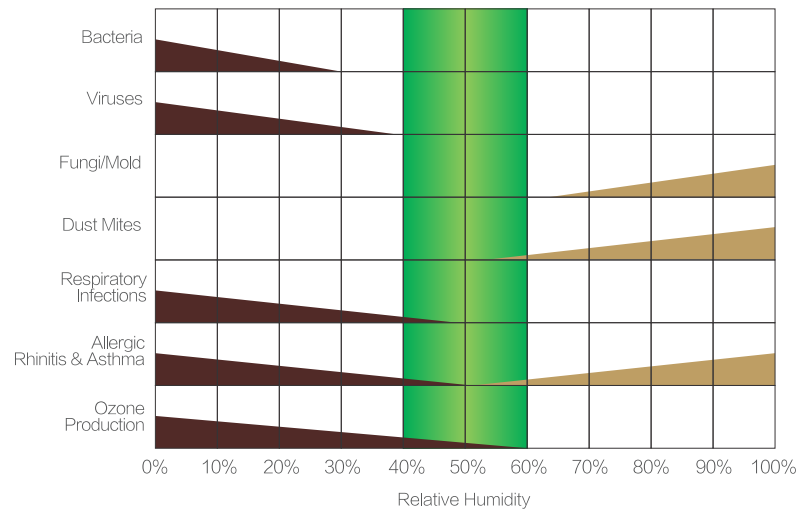
Clay can regulate relative interior humidity between 40% and 70%. (Arundel, A. V. 1986) By keeping RH between 40% and 70% research has shown that the likelihood for airborne infectious bacteria and virus to survive is the lowest.



Earth masonry humidity buffering for 4mx4mx2.4m high room




Optimum Zone



Patent & Certifications

		
URKUNDE	CERTIFICATE	CERTIFICAT
Es wird hiermit bescheinigt, dass für die in der Patentschrift beschriebene Erfindung ein europäisches Patent für die in der Patentschrift bezeichneten Vertragsstaaten erteilt worden ist.	It is hereby certified that a European patent has been granted in respect of the invention described in the patent specification for the Contracting States designated in the specification.	Il est certifié qu'un brevet européen a été délivré pour l'invention décrite dans le fascicule de brevet, pour les Etats contractants désignés dans le fascicule de brevet.
Europäisches Patent No.:	European patent No.:	Brevet européen n°:
	2157139	
Inventor:	Proprietor of the patent:	Titulaire du brevet:
	<p>SHI, Lai Jain Science and Technology Garden Zhongshan Panyu District Guangzhou Guangdong 511495/CH</p>	
		 Bernd Hoffmann Präsident des Europäischen Patentamts President of the European Patent Office Président de l'Office européen des brevets
		München, den März 6, 26.03.14

European Patent

 US08505840B2	
(11) United States Patent Sh)	(11) Patent No.: US 8,505,840 B2 (11) Date of Patent: Aug. 13, 2013
(51) METHOD FOR MODIFYING NORMAL CLAY AND A METHOD FOR PRODUCING COMPOSITE ELASTOMERS FROM THE CLAY	
(52) Invention: Lai Shi, Guangzhou, (CN)	
(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 1363 by 547 days.	
(21) Appl. No.: 12491321 (22) PCT Filed: Aug. 28, 2007 (86) PCT No.: PCT/CN2007/002534 § 371(a)(1), (2), (4) Date: Nov. 6, 2009	
(87) PCT Pub. No.: WO2008/134917 PCT Pub. Date: Nov. 13, 2008	
(88) Prior Publication Data: US 2010/0090475 A1 Apr. 22, 2010	
(51) Int. Cl.: B22C 23/00 (2006.01) B22C 29/00 (2006.01) B22C 24/00 (2006.01)	
(52) U.S. Cl.: USPC 284/12; 284/13; 284/13 USPC 284/21; 284/21-31 See application file for complete search history.	
(53) References Cited: U.S. PATENT DOCUMENTS 6,902,817 A * 07/99 Hanson et al. 2002/0228 6,905,787 B1 * 02/03 Longmacker 2002/0228 * cited by examiner	
Foreign Examiner—Page Francis (74) Attorney Agent, or Firm—Raymond Y. Choi, David and Raymond Patent Firm	
(57) ABSTRACT	
A method for modifying soil and a method for producing composite elastomer of the soil are disclosed. The method for modifying soil includes drying, pulverizing, sieving, and purifying the soil to obtain soil powder, then chemically treating the powder and adding surfactant, which includes coupling agent, polyols/urea having reactive functional, remainder of copolyurea and aliphatic amine, soil water, and then drying the above obtained powder to obtain modified soil. The modified soil and acrylic acid copolymer emulsion are mixed with plasticizer, foaming agent, etc. to form a composite body which is used to produce elastomer floor board, elastomer wall block, composite soil skin material, and so on. No emission of toxic gas and evaporation of organic solvent can be attained during production and use of the invention, and performance of the product is same as or has superiority over surface in compressive deformation rate, rebound elasticity and durability.	
13 Claims, 3 Drawing Sheets	
	

United States Patent



Singapore Environment Council



Korea Green Building Council



India Green Building Council



China Green Building Council



Awarded for 2013 112th Paris Concours Lépine International Inventions Exhibition



Complies Environmental Management System Certification ISO 14001 : 2004

External Cladding



Internal Cladding

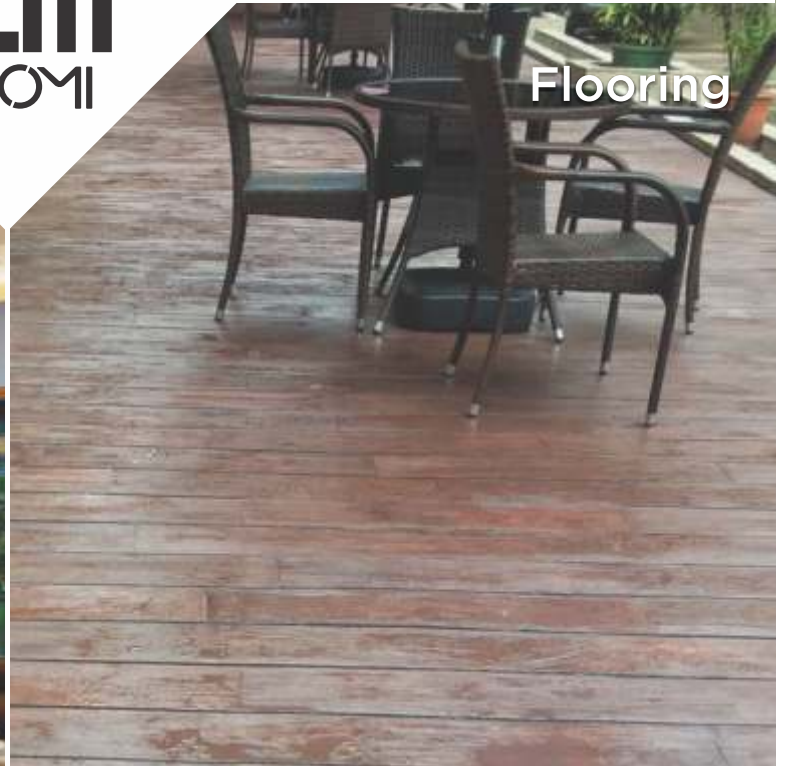


UTILITY
PHOMI

Ceiling



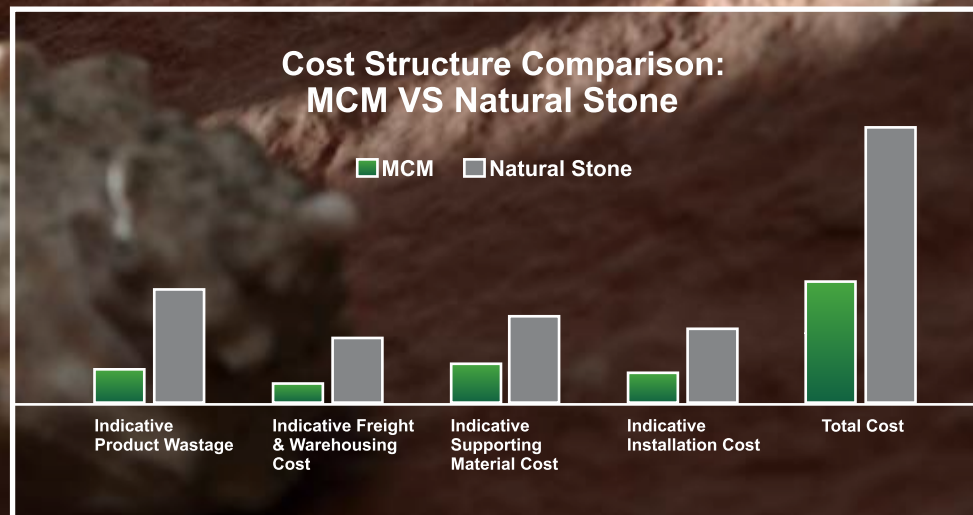
Flooring



Unfired Flexi Clay

MCM STONE

MCM Stone presents the original surface of natural stone, without destroying natural environment mine.





MCM TRAVERTINE

Product Size (mm)

1200 X 600



052KZ



052053



031YZD



052 *





MCM OASIS STONE

Product Size (mm)
900 X 590



OASIS STONE RAINE



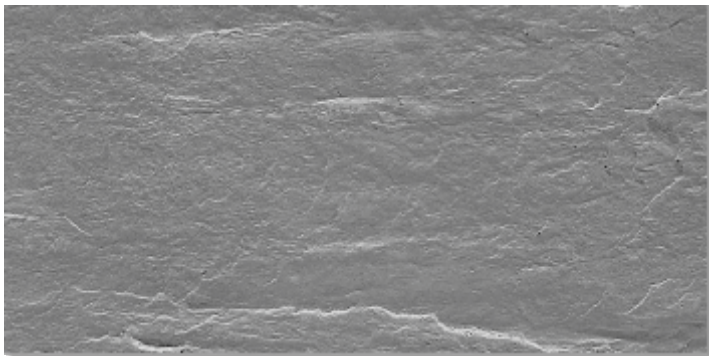
OASIS STONE WINDE



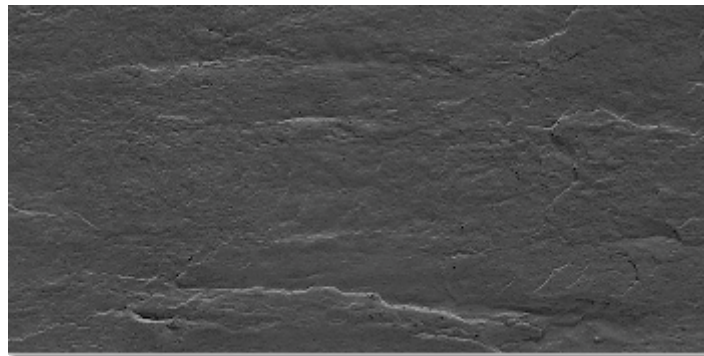
OASIS STONE FOGE *



025



221



043





MCM SLATE

Product Size (mm)

575 X 286 | 1150 X 575 **



SLATE SUNNYE



SLATE VOLCANOE



SLATE PHANTOM



SLATE ARTE



O52*

NOTE: Color variation and gradation in every batch is a natural feature and part of our manufacturing process. These variations add to the overall character of MCM.
*Available only against special order with sufficient lead time and MOQ. **Size available against special order





MCM SANDSTONE

Product Size (mm)

1200 X 590



SANDSTONE CLOUDE



SANDSTONE SUNSHINE



SANDSTONE VISION*



052*





MCM CROSSARD MUSHROOM STONE

Product Size (mm)
1200 X 300



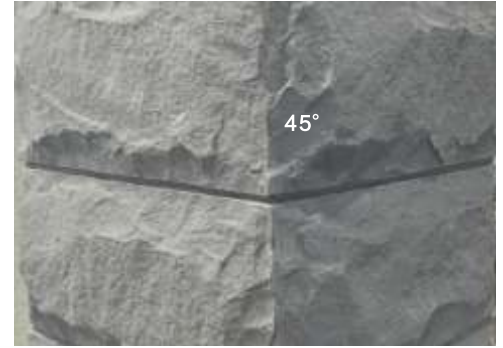
221



043*



052*





MCM DEVINE MUSHROOM STONE

Product Size (mm)

790 X 380



052



221*



031*



043*





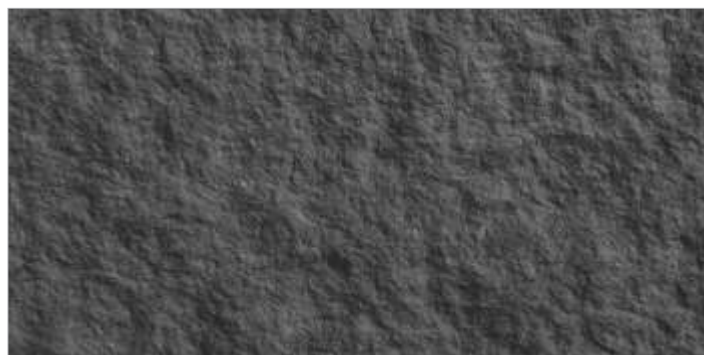
MCM GRANITE

Product Size (mm)

790 X 285 | 1590 X 580 **



209



317



052 *



308

NOTE: Color variation and gradation in every batch is a natural feature and part of our manufacturing process. These variations add to the overall character of MCM.
*Available only against special order with sufficient lead time and MOQ. **Size available against special order





MCM CUT STONE

Product Size (mm)

1200 X 600



052



221



362



369*





MCM INFINITI STONE

Product Size (mm)

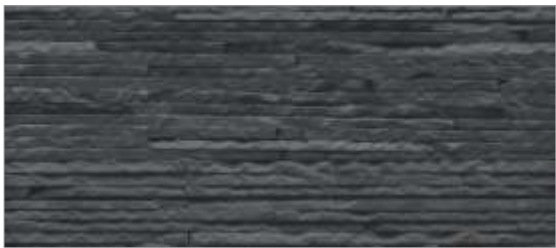
580 X 300



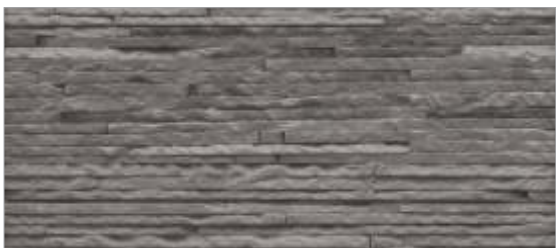
052



058



043



031*





MCM 35 PIECE STACK STONE

Product Size (mm)

590 X 280



315



206



058



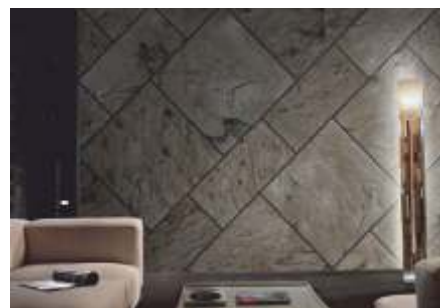
NOTE: Color variation and gradation in every batch is a natural feature and part of our manufacturing process. These variations add to the overall character of MCM.



MCM GOLDEN LOLITE

Product Size (mm)

575 X 286





MCM INK PAINTING STONE

Product Size (mm)

575 X 286



NOTE: Color variation and gradation in every batch is a natural feature and part of our manufacturing process. These variations add to the overall character of MCM.



MCM CONCERTO STONE

Product Size (mm)

1200 X 600



052



221*



The image shows several rectangular samples of unfired flexi clay masonry mortar composite (MCM) facing bricks. The bricks are arranged in a staggered pattern on a dark, textured surface. The colors of the bricks include a light tan, a dark grey, and a deep red. Each brick has a distinct, rough, and porous texture. Green leaves are scattered around the bricks, some in the foreground and some in the background, adding a natural feel to the composition. The lighting is soft, highlighting the texture of the bricks.

Unfired Flexi Clay MCM FACING BRICK

MCM Facing Brick has the same unique texture as kiln-fired brick, however, flexible and thin.



MCM A-SERIES FACING BRICK

Product Size (mm)

240 X 60



308317



221228231



054058



085089



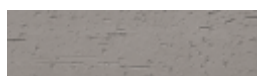
SHADE OPTIONS *



054



369



203



308



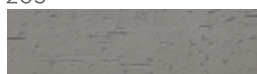
228



058



366



206



326



030



085



364



025



328



031



201



362



221



310



315



038



043







MCM K-SERIES FACING BRICK

Product Size (mm)

225 X 60



052



228030



326C4



087C4 *

SHADE OPTIONS *



025



030



369



308



328



054



038



366



326



315



221

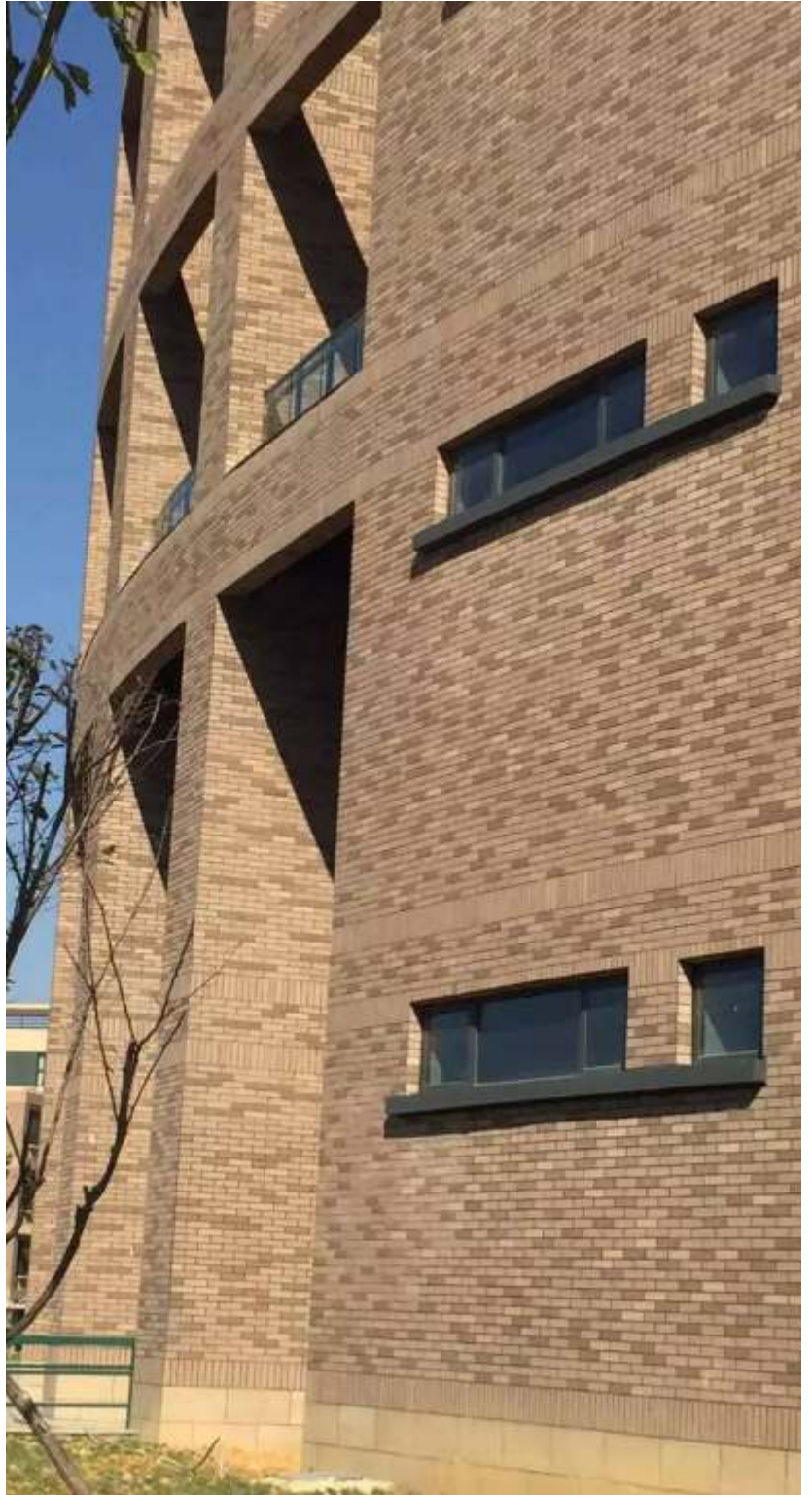


043



364







Unfired Flexi Clay

MCM WOOD

We make wood from soil, not by cutting trees.



MCM WOOD

Product Size (mm)

900 X 180



JAGGED WOOD OLYMPUS



ORIGINAL WOOD SUEZ



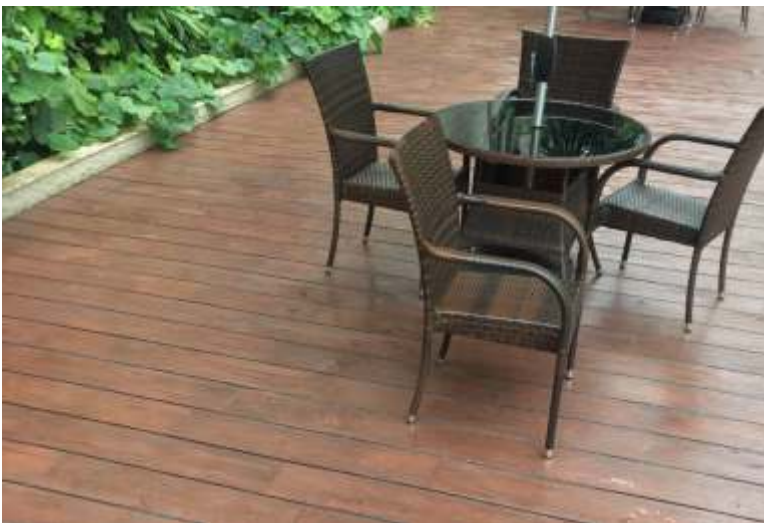
ORIGINAL WOOD RHINE



ORIGINAL WOOD VOLGA



NOTE: Color variation and gradation in every batch is a natural feature and part of our manufacturing process. These variations add to the overall character of MCM.





Unfired Flexi Clay

MCM LEATHER

MCM Leather has the same unique texture like natural leather, however made without any harm to animal life, adding beauty to your building.





MCM ELEPHANTIASI *

Product Size (mm)

1500 X 600



228



043



052



308



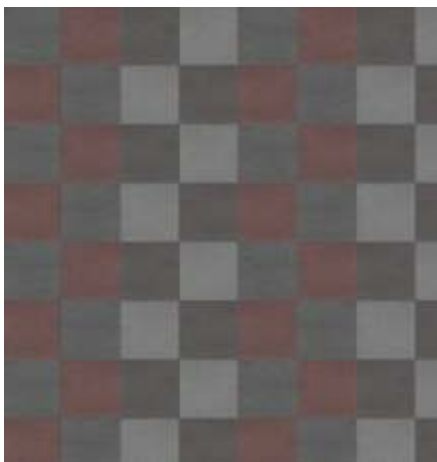
201/203/206 1200x600 1200x300 1200x150mm
6mm/203



370/369 600x300mm
6mm/370



054/315 600x600
100x100mm 6mm/054



031/043/326/315 600x600mm 6mm/043

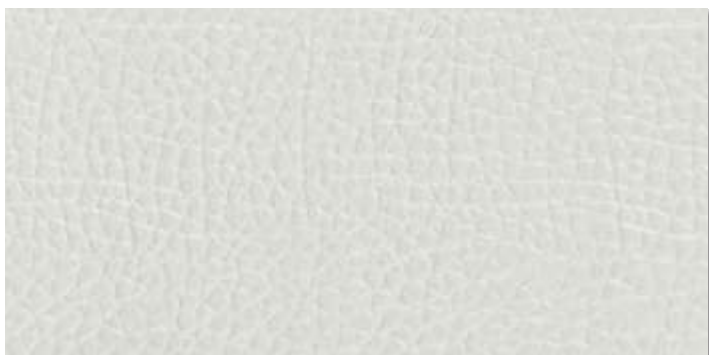




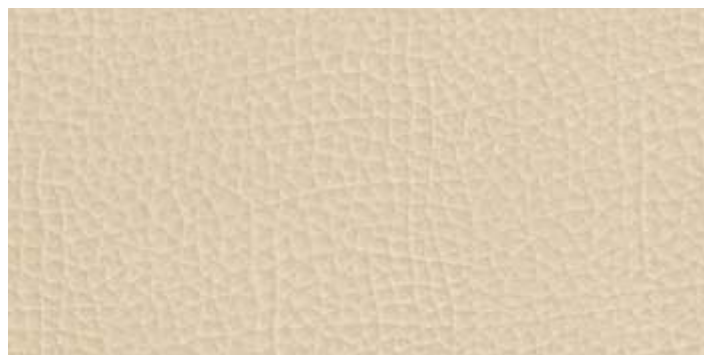
MCM COARSE LEATHER

Product Size (mm)

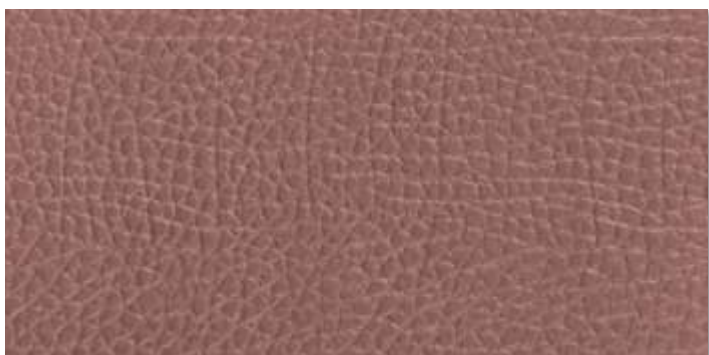
1500 X 600



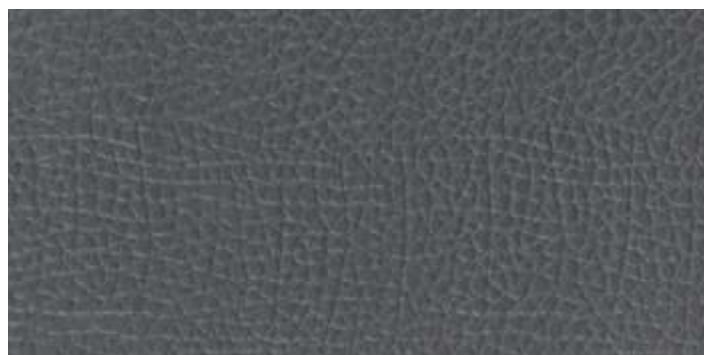
052*



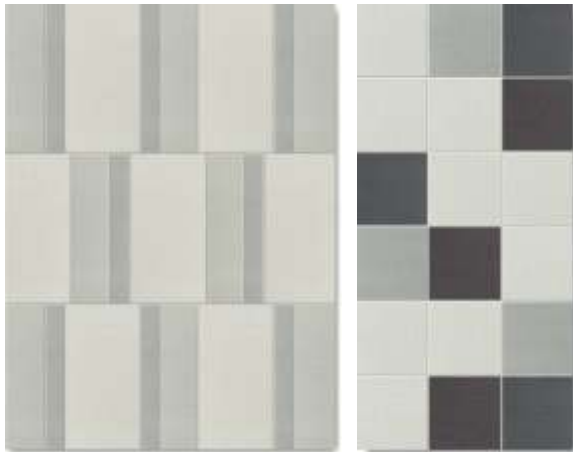
054



308*



043*



052/025/221 1200X600 052/221/043/315
1200/300 1200X150mm 6mm/052 600x600mm 6mm/052



052/221/043/315 1200x600mm 6mm/052



054/058/308/326 600X300mm 6mm/038

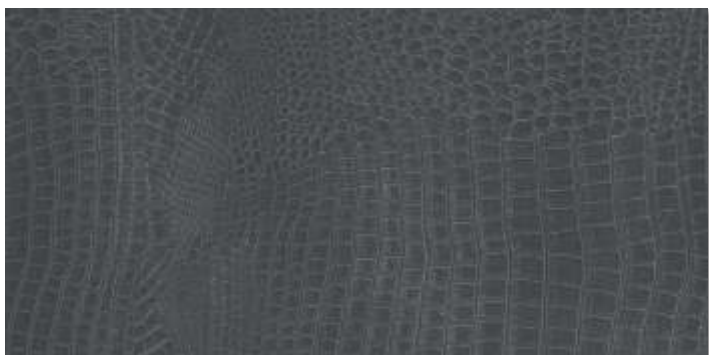




MCM CROCO

Product Size (mm)

1500 X 600



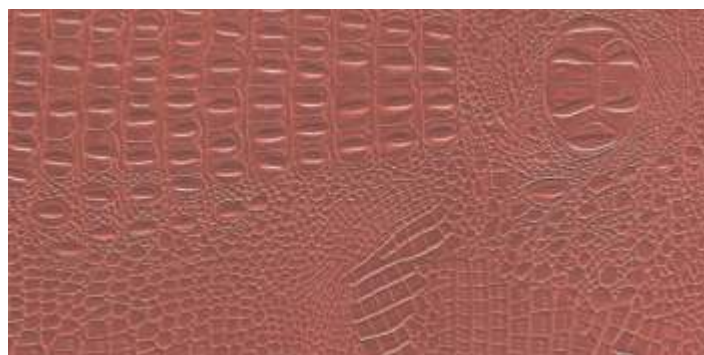
043



052



031



308*



221/315 600x600 100x100mm 6mm/221



308/315 1500x600mm 8mm/038





MCM W WEAVING

Product Size (mm)
1500 X 600



089



056



052



206 *



054 600x600mm



058 600x600mm



054/058/360 600x600mm



052/025/221 600x600mm 密贴



058/360/308/326 600x600mm



201/206/326 600x600mm



201/203/206 1500x600/1500x300/1500x150mm
1200x600/1200x300/1200x150mm





Since ancient times, using clay for construction has proven to help regulate building's temperature and humidity. MCM Stone is made of modified clay material and stone powder that is environmentally safe and recyclable, plus Class A Fireproof. Our products are thin, lightweight, flexible, extremely durable and very functional! They can be installed on new walls and floors, and are perfect for renovations of old surface coverings such as tiles and paints. Our products have a high degree of shock resistance and will not shatter. Transform your rooms quickly, and economically!

Ideal Uses:

- External Cladding
- Interior Wall Covering
- Ceiling
- Flooring
- Furniture Covering
- Landscaping

Installation Instructions

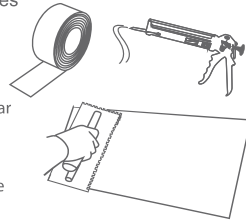
- MCM Panel can be applied using various types of PU, Cement, Polymer based adhesives. It is advised to refer adhesive manufacturers Instruction for use.
- Where grouting is needed it is suggested to use "Filling and Pointing" method to do the grouting.
- Grouting is recommended for high moisture application areas.
- MCM Panel can be easily cut using portable cutting machine hand grinders.
- Use a cloth or sponge with warm soap water to clean the extra adhesive during Installation, (Do not use harsh Chemicals).
- Wet areas such as bathrooms, Kitchen, etc. It is recommended to use resin based adhesive for product installation to avoid efflorescence. For all flooring, bathroom and kitchen wall, and wet area applications, the manufacturer recommends to apply protective coating.

Step 1 - Surface Preparation



Wash surface areas, and allow to dry.
Remove any debris, raised or uneven surfaces.

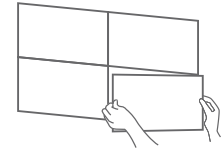
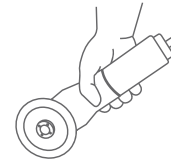
Step 2 - Adhesives or Glues



Various adhesives, light mortar for tiles and stones and / or double-sided adhesive tape are used for sustainable performance. Use the suitable adhesive / glues as per the substrate.

Step 3 - Cutting & Installation Steps

Marking: Use a lead pencil to mark cut line.
Cutting: Tile cutter to cut along line.

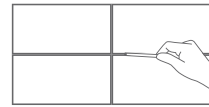


Install Flexi Clay tiles vertically or horizontally according to your choice.

Step 4 - Grouting Steps

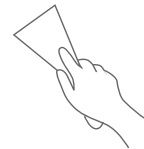


Feed grout into the joint.
You may also use a masking tape along the periphery of the tile to secure the edges from the grout, if needed.



Smooth metal rod

Step 5 - Cleaning Steps



Use a scraper or a dry sponge to wipe off excess grout while half wet.

Note:

We recommend to apply protective coatings on mcm panels when installed in high traffic areas or floorings. This protective coating should be applied on mcm panels before installation with roller. Also, the mcm surface should be dry and free from dust

Product Quality on Appearance:

- PHOMI's manufacturing process has been designed to imitate the random beauty and nature of real stone. As such, stone surface may contain small air holes or surface anomalies. These differences add to the overall character of the stone and should not be considered to be a manufacturing defect. Every piece of MCM product inherently lacks uniformity and is subject to variation in aesthetics, color, finish, thickness, density etc.
- It is normal if products contain few Residual mesh fringed which does not affect installation
- It is normal if product size has small variation on diagonal (less 2 mm)
- It is normal that there is some color variation on production within the same production batch or across different production batches. These variation add to the overall character of the stone.



Indian Green Building Council



US Patent No.
8,505,840 B2



Europäisches
Patentamt
European
Patent Office
Office européen
des brevets



2013 112th Paris Concours
Lépine International Award



Awarded for China 7th
International Exhibition Inventions



PHOMI MCM
024-013-2219
"Eco-Friendly Building Material"



No: IN-XM-CP-5612-14052



The use of the Accreditation
Mark indicates accreditation in respect
of those activities covered by the
accreditation certificate number 046



QA/IC/CN/135 159-C

EXCLUSIVE MCM DISPLAY CENTRES



Changing Our Nation

MCM is committed to the construction of low carbon city



Traditional Industrial City





MCM Green City



HQ

MCMFlexi Cladding India Pvt. Ltd.

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Veera Desai Road, Andheri (West),
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Product Display Centre

