al rayyan
Readymix Concrete & Cement Products

AL RAYYAN

READYMIX CONCRETE & CEMENT PRODUCTS W.L.L

PRODUCTS CATALOGUE

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Al Rayyan RMC & CP

One of the leading suppliers of precast concrete and cement products in Qatar, with an impressive list of clients, throughout the industry.

Al Rayyan RMC & CP is a dependable and innovative service provider to major contractors in the country.

Al Rayyan RMC & CP is manufacturing a wide range of interlocking paving blocks, precast concrete kerbs and masonry blocks to meet the demand of any type of civil engineering projects. Our products also meet the most recent standards stipulated by QCS and the various government organizations in Qatar.

Al Rayyan RMC & CP focuses on building relationship with both employees and its partners for the long- term success of its stakeholders.

In the short period our state-of-the-art factory came on stream, our fast growing list of satisfied clients is a clear testament to **Al Rayyan RMC & CP's** standards of quality, excellence and above all reliability.

Product Range

Interlocking
Paving
Blocks

Precast
Kerbstone

Concrete
Masonry
Blocks


WEAR GLOVES
Wear dust mask

Interlocking Paving Blocks

Concrete block paving is versatile, aesthetic, attractive, functional, cost effective and requires very little or no maintenance. The edges of the chamfered pavers, which remain visible has an impact on the appearance as well as decreases the danger of spalling at the edges.

Concrete paving blocks with different colours and textures are useful to develop the natural beauty of outdoor living space and improve the civil engineering infrastructure facilities.

Component materials

Ordinary Portland cement, Potable water, Washed natural sand, Gabbro aggregate, Pigments and admixtures.

Shape and Size

Rectangular and non-rectangular blocks with standard thickness 60mm and 80mm

Colors

All the standard colours and blended special colours

Colors

GREY

RED

BLACK

YELLOW

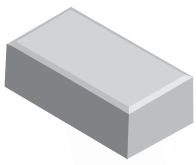
TAN

SANDY

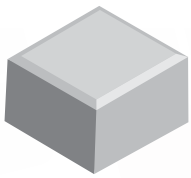
GREEN

BROWN

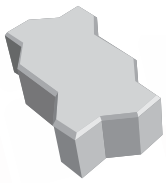
Types of Paving Blocks



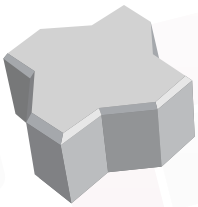
Rectangular



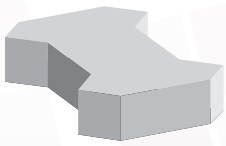
Square



Uni - Zig Zag



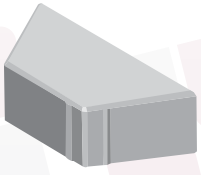
Uni Half Block



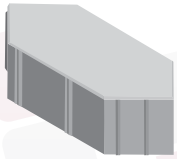
Quadro - I Shape

Behaton

Octagonal



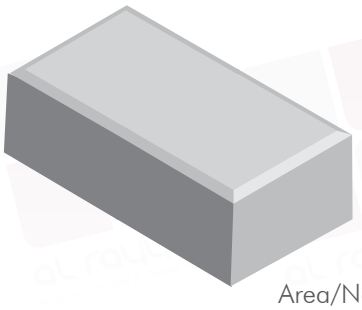
Trapezoidal



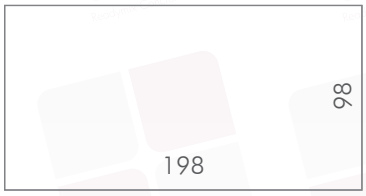
Rhombus

Rectangular

Standard Block

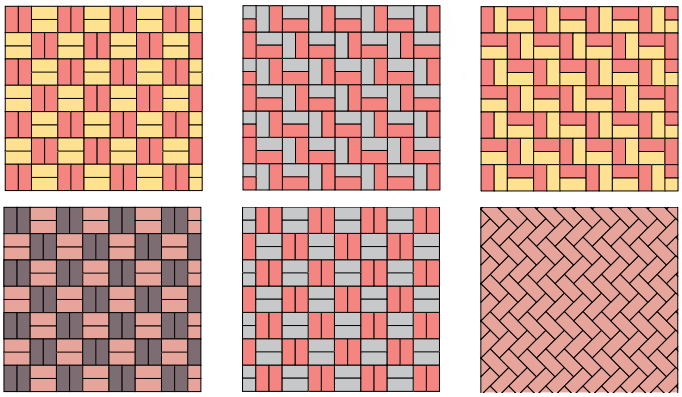


Sizes (mm)



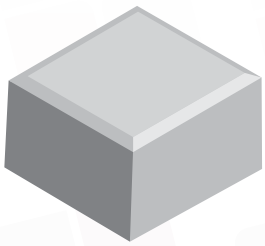
Area/No.	Thickness (mm)	kg/Block (Approx)
0.0200m²	**60**	**2.730**
	80	**3.650**

No.s/M²
50

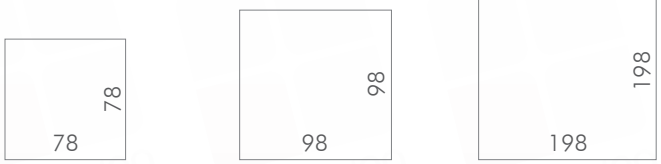


Square

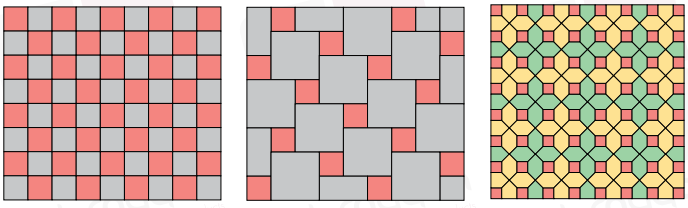
Standard Block



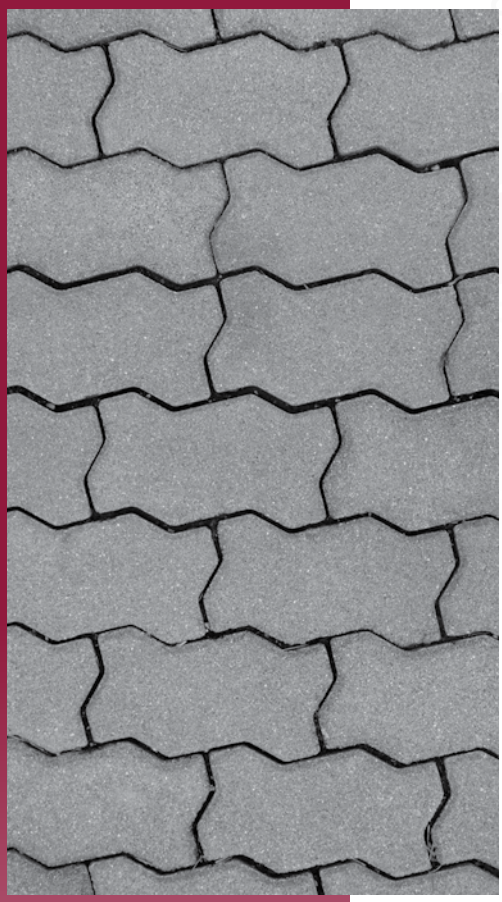
Sizes (mm)



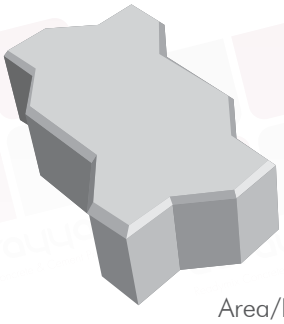
Area/No.	Area/No.	Area/No.
0.0064m²	**0.01m²**	**0.04m²**
No.s/M²	No.s/M²	No.s/M²
156	**100**	**25**
Thickness (mm)	Thickness (mm)	Thickness (mm)
60	**60**	**60**
80	**80**	**80**
kg/Block (Approx)	kg/Block (Approx)	kg/Block (Approx)
0.88	**1.38**	**5.65**
1.17	**1.84**	**7.53**



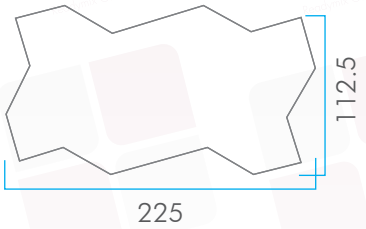
Uni-ZigZag



Standard Block

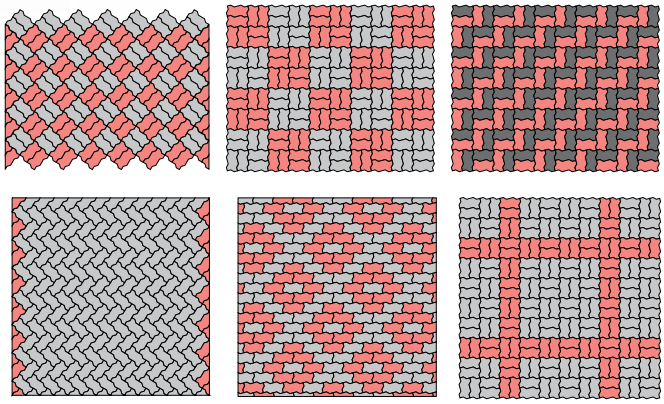


Sizes (mm)



Area/No.	Thickness (mm)	kg/Block (Approx)
0.026m²	**60**	**3.43**
	80	**4.57**

No.s/M²
39



A Satisfied Client

Hamad New Port

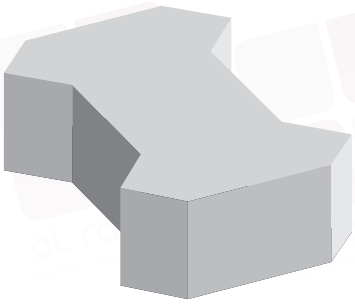
Approximately 1 million Square metres of pavement blocks

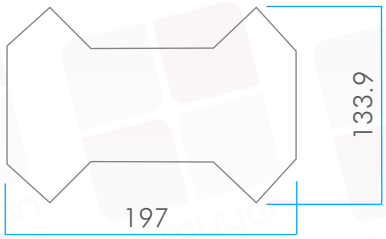
Colors

GREY
RED
BLACK
YELLOW
TAN
SANDY
GREEN
BROWN

Quadro - I Shape

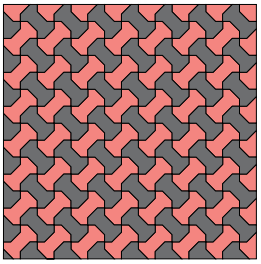
Sizes (mm)

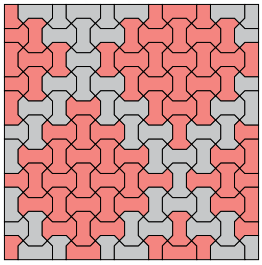




Area/No.	Thickness (mm)	kg/Block (Approx)
0.020m²	**60**	**2.64**
	80	**3.53**

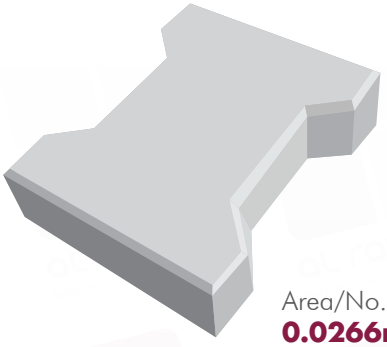
No.s/M2
50

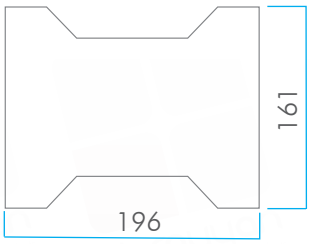




Quadro - Behaton

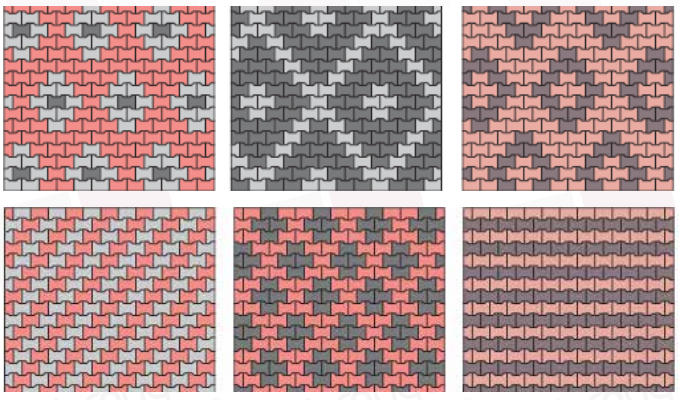
Sizes (mm)





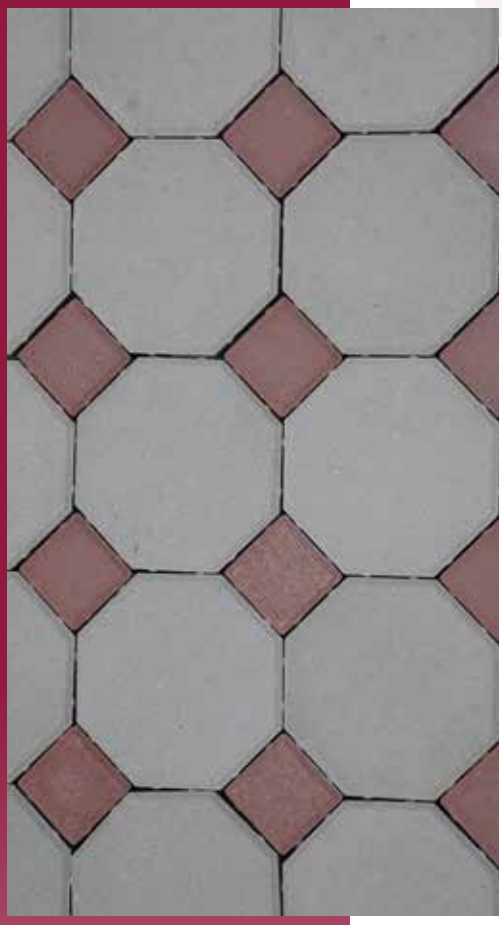
Area/No.	Thickness (mm)	kg/Block (Approx)
0.0266m²	**60**	**3.70**
	80	**4.90**

No.s/M2
37.7



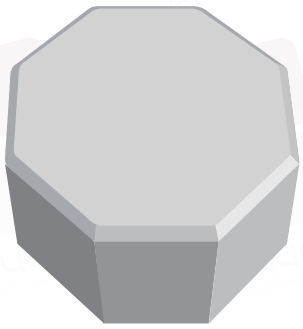
Colors

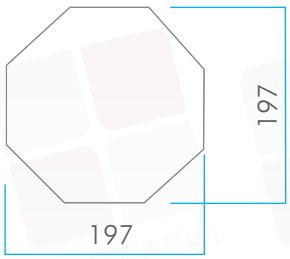
GREY
RED
BLACK
YELLOW
TAN
SANDY
GREEN
BROWN



Octagon

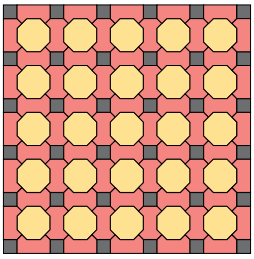
Sizes (mm)

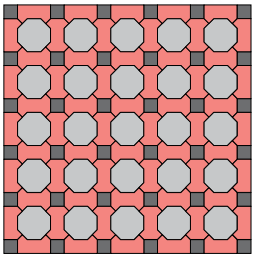


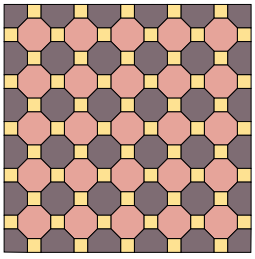


Area/No.	Thickness (mm)	kg/Block (Approx)
0.032m²	**60**	**4.63**
	80	**6.17**

No.s/M²
31.5





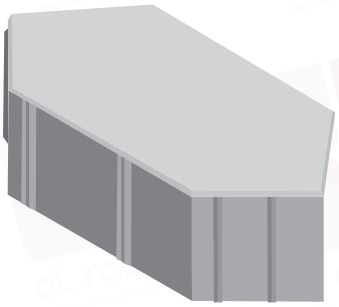


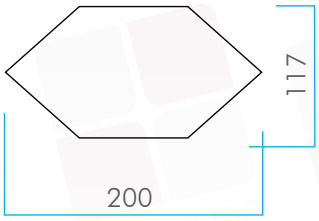
Colors

GREY
RED
BLACK
YELLOW
TAN
SANDY
GREEN
BROWN

Rhombus

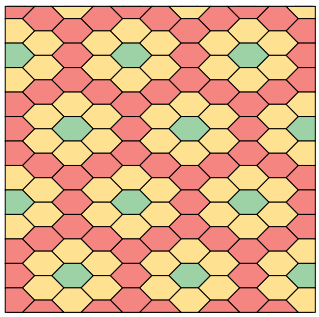
Sizes (mm)

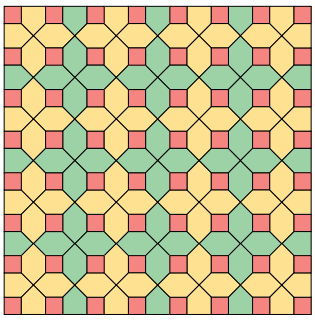




Area/No.	Thickness (mm)	kg/Block (Approx)
0.016m²	**60**	**2.23**
	80	**2.98**

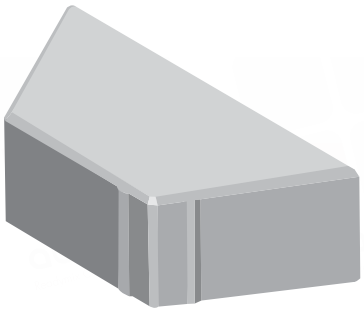
No.s/M²
60.5

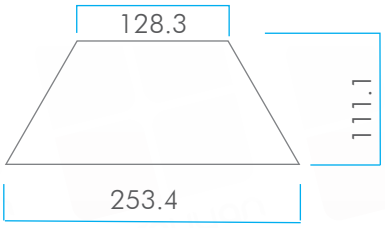




Trapezoidal

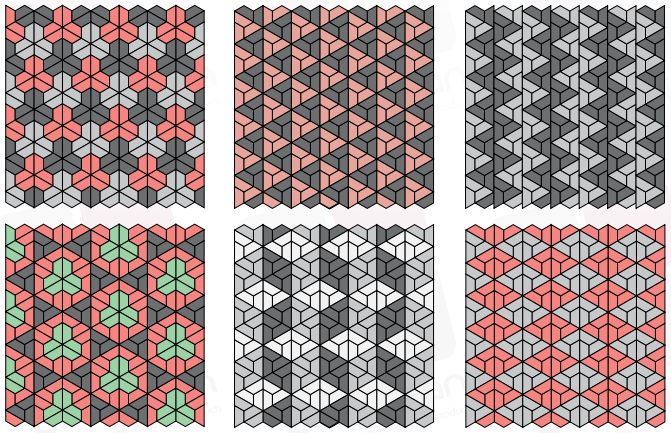
Sizes (mm)





Area/No.	Thickness (mm)	kg/Block (Approx)
0.0213m²	**60**	**2.90**
	80	**3.87**

No.s/M²
47



Colors

GREY
RED
BLACK
YELLOW
TAN
SANDY
GREEN
BROWN

Interlocks Construction

Procedures to Follow

- Check underground utility
- Estimate the amount of excavation based on the soil type
- Estimate the thickness of pavers suitable for the area.
- Survey the quantity of
  - Excavation & Base
  - Edge restraints
  - Sand for bed
  - Sand for joint filling
  - Pavers of required colours
  - Equipment and tools
- Propose design
- Submit method statement
- Approval for design and method statement
- Finalize contract
- Audit manufacturers and suppliers of required materials
- Get quotation from suppliers
- Finalize contract with suppliers
- Plan material delivery and flow of materials
- Lay out access to site
- Lay out area for equipment and material storage
- Order materials
- Mobilization to site
- Excavate soil
- Compact subgrade to the required % of compaction
- Check the elevations
- Install site utilities
- Install geo synthetics if required
- Fill with suitable base material to required compaction and thickness
- Check the elevations
- Install edge constraints
- Place suitable graded sand in sand setting bed with required moisture
- Place pavers in designed laying pattern
- Cut and place edge units
- Compact pavers
- Remove damaged / broken units
- Sweep suitable graded sand into joints
- Vibrate and compact sand in joints
- Check for fullness of joints
- Remove extra sand
- Clean pavers and clean up the site.

CONFORMITY CERTIFICATE

Qatar General Organization for Standardization

CONFORMITY CERTIFICATE

FOR THE TECHNICAL REQUIREMENTS IN THE FIELD OF CONSTRUCTION & BUILDING PRODUCTS MANUFACTURER/SUPPLIER

Certificate No: PK 385

Precast Concrete Product
Paving block

Products	paving block – Rectangular Size 200*100*80 mm. (Red) (Using Gabbro Aggregate + OPC)
Manufacturer	Al Rayyan Readymix concrete & Cement products w.l.l. P.O.Box : 23958 Messaied-Qatar Tel: 44140048 Fax: 4436742
Factory location	Messaied – Industrial City .

Responsibility
The engineers and consultants must be checked the quality of products at any time according to the requirements of the project.

Condition

- The above manufacturer was determined as satisfactory at the time of inspection with the quality audit in accordance of standard regimen and requirements of the QCS 2014 section 6 part 13 for products and section 1 for raw materials.
- This conformity certificate shall remain valid for the period shown provided the below are adhered to.
- This conformity certificate was granted upon the request of the manufacturer.

Requirements
1- The continuation of this certificate requires the above manufacturer to apply the approved quality assurance scheme to provide access to the Ministry of Environment (MOE) at any reasonable time to audit the quality assurance scheme and test any products.
2- Compliance tests for the approved quality assurance scheme shall be carried out by an approved materials testing laboratory and copies forwarded to the MOE.
3- The approved quality assurance scheme shall be as notified in writing by the MOE.

Notes:
(1) The QS has no any responsibility for supplying of modified or poor quality by the manufacturer / supplier during the validity period.
(2) It is important to apply five months before expiry date of validity for renewal of this conformity certificate.
(3) The required fee for this certificate has been stated according to the declared No. 78/2004 of H.E. the Minister of Economy and Trade.

Issued by: Head of QC Section

Authorized Signatory for Conformity Dept.

Approved by: PRESIDENT, QGOS

Alrayyan RMC & CP has been certified by MOE for conformity of the products with QCS.

Specifications

QCS requirement includes such specified component materials, Tensile splitting strength, Water absorption, Permissible variations in dimensions, and finish and appearance criteria.

Compressive strength (MPa)	Tensile splitting strength (MPa)	Water Absorption%
Average ≥49MPa	Average ≥3.6MPa	Average ≤5%
Individual ≥40MPa	Individual ≥2.9MPa	Individual ≤6 %

The advantages of precast concrete paving blocks

- Adequate strength and structural stability
- Durability and Flexibility
- Capable of supporting heavy loads
- No structural maintenance for correctly installed areas
- Quick Installation
- Simple laying techniques
- Can be reset very quickly and inexpensively
- Fast and easier production system
- Enhanced Aesthetics- Eye catching beautiful, great first impression
- Unique Designs-Weathered/rustic, modern/ contemporary, classic/timeless
- Dimensional accuracy and high finishing quality
- Array of shapes, sizes, colours and textures
- Resistance to freeze-thaw cycles
- Resistance to deicing salts
- High abrasion Resistance
- High skid resistance
- Minimal damage from petroleum products
- No indentations in high temperature
- Lower life cycle cost
- Tolerate vertical deformations
- Non-polluting and environmentally neutral
- Low maintenance cost
- Modern design forms
- Richness in texture
- Highly automated manufacturing process

Precast Kerbstone

Purpose of precast concrete kerbs

- To improve aesthetic values of the road alignment.
- To protect pedestrians.
- To assist drainage.

Types

- Non-mountable.
- Dropped.
- Flush.

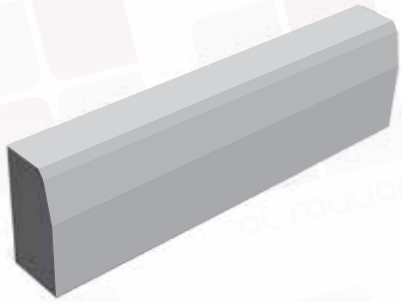
Specifications

QCS requirement includes such specified component materials, Transverse strength (Load at failure), Water absorption, Permissible variations in dimensions, and finish and appearance criteria.

Cross section of flush kerbs (mm)	(Load at failure) (kN) (BS 7263:1994)	Water Absorption % (BS 7263:1994, BS 1881-122)	Total water absorption % (BSEN 1340)	Bending Strength (MPa) (BSEN 1340)
305x150	≥ 22.2	≤ 3.0%	≤ 6.0%	Average ≥ 3.5 MPa, Individual ≥ 2.8 MPa
305x125	≥ 15.7			
254x150	≥ 18.7			
254x125	≥ 13.3			
150x125	≥ 8.0			
254x50	≥ 5.1	≤ 3.6%		
150x50	≥ 3.3			

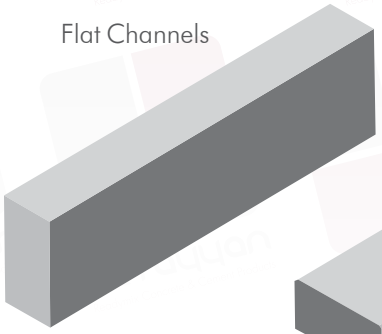
Types of Kerbstone

Half Batter

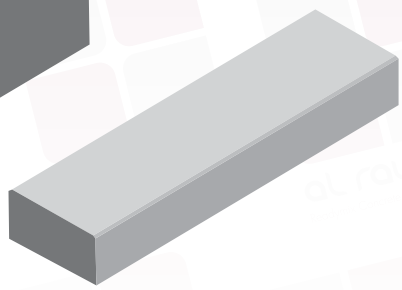


Size (mm)	kg/Block (Approx)
914 X 305 X 150	**100**
914 X 305 X 125	**80**
914 X 305 X 100	**63**
914 X 254 X 150	**80**
914 X 254 X 125	**66**

Flat Channels

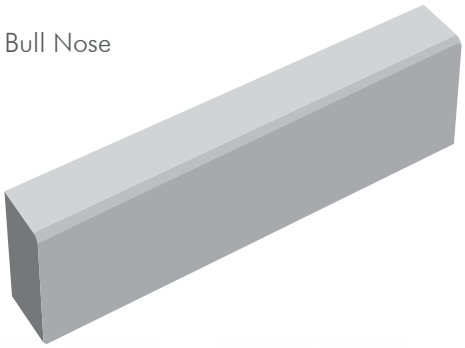


Double Chamfer



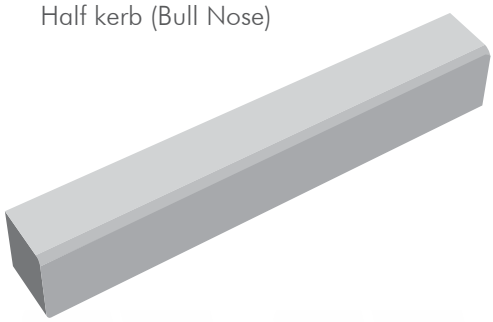
Size (mm)	kg/Block (Approx)
914 X 305 X 150	**104**
914 X 305 X 125	**83**
914 X 305 X 100	**67**
914 X 254 X 150	**83**
914 X 254 X 125	**69**
914 X 254 X 100	**55**

Bull Nose



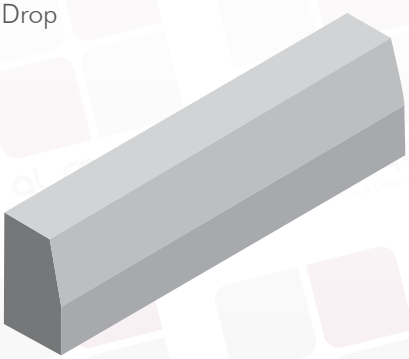
Size (mm)	kg/Block (Approx)
914 X 305 X 150	**104**
914 X 305 X 125	**83**
914 X 305 X 100	**67**
914 X 254 X 150	**83**
914 X 254 X 125	**69**
914 X 254 X 100	**55**

Half kerb (Bull Nose)



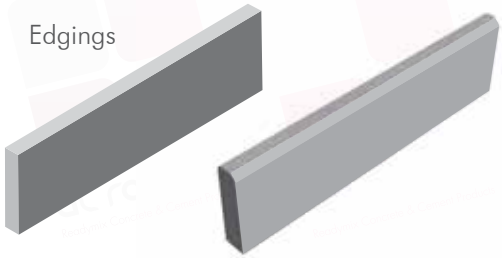
Size (mm)	kg/Block (Approx)
914 X 150 X 125	**41**

Drop



Size (mm)	kg/Block (Approx)
914 X 305 X 150	**99**

Edgings



Flat Top

Bull Nose

Size (mm)	kg/Block (Approx)
914 X 254 X 50	**28**
914 X 150 X 50	**16.5**

Kerbstone Installation

Important Steps that are involved in installation of precast concrete kerbs

- Check underground utility
- Estimate the type / size of kerbs corresponding to the intended upstand / purpose.
- Estimate the quantity of
  - Excavation
  - Sub Grade
  - Concrete for foundation and backing.
  - M S bars joining foundation and backing
  - Mortar bed between kerbs and foundation
  - Mortar for joint filling if applicable
  - Kerbs and edgings of required types
  - Equipment and tools
- Propose design
- Submit method statement
- Approval for design and method statement
- Finalize contract
- Audit manufacturers and suppliers of required materials
- Get quotation from suppliers
- Finalize contract with suppliers
- Plan material delivery and flow of materials
- Lay out access to site
- Lay out area for equipment and material storage
- Order materials
- Mobilization to site
- Excavate soil for foundation
- Excavate and refill with suitable material if existing sub grade is unsuitable
- Compact subgrade to the required % of compaction
- Check the elevations
- Install site utilities
- Install geo synthetics if required
- Place foundation concrete for designed thickness
- Provide MS rods, half of its length protruding above foundation to join backing concrete.
- Moist curing of foundation concrete
- Set up string lines to both top and front face of kerbs
- Place suitable grade of mortar bed for kerb on foundation concrete
- Place kerbs above mortar bed aligned with the strings
- Provide desired type of joints between kerbs.
- Provide expansion joints at specific distance if joints are wider and filled with mortar
- Remove surplus mortar bed and allow mortar to harden by curing
- Place backing concrete to designed size and shape
- Cure backing concrete
- Prepare the exposed kerbs for colour washing and apply desired colours if required.

Production in Al Rayyan RMC & CP factory is equipped with state-of-the-art of technology and the QC Lab is with sophisticated testing and measuring equipment. Our plant operates with seamless efficiency being managed by well experienced professionals.

Our constant innovation and exceptional customer service have guided us from the beginning making us one of the leading names for concrete products in this region.

Masonry Blocks

Qatar construction specification contain minimum requirements that assure properties necessary for quality performance. These requirement includes such specified component materials, compressive strength, Water absorption, Permissible variations in dimensions, and finish and appearance criteria.

The benefits of hollow masonry blocks

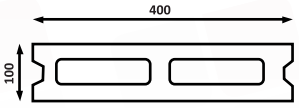
- Adequate strength and structural stability
- Highly durable
- Fire resistant
- Fast and easier production system
- Economy in design of sub structure due to the reduction of dead loads
- Requires minimal mortar
- Dimensional accuracy and high finishing quality
- Sound Insulation
- Thermal insulation
- Less maintenance cost
- Quick laying
- Much more sturdy
- Environmentally eco friendly
- More factor of safety
- Modern design forms
- Richness in texture
- Cost competitiveness
- Highly automated manufacturing process

Types of Masonry Blocks

Hollow Blocks

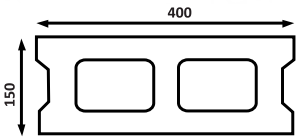
Non-Load Bearing class
Load Bearing class

Hollow Block 400 X 100 X 200 (mm)



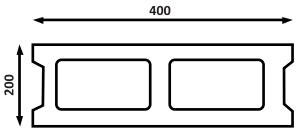
kg/Block (Approx)
12

Hollow Block 400 X 150 X 200 (mm)



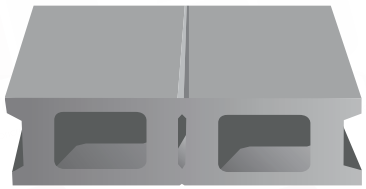
kg/Block (Approx)
14.5

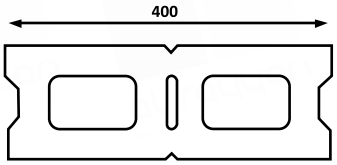
Hollow Block 400 X 200 X 200 (mm)



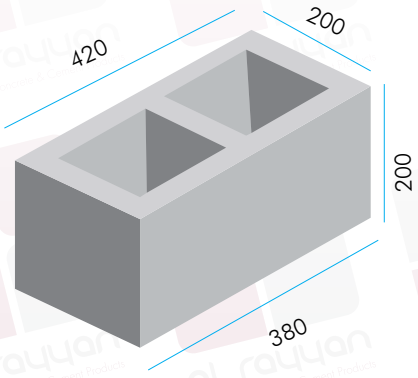
kg/Block (Approx)
19.5

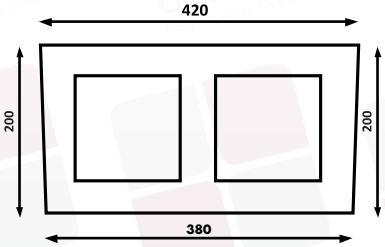
Split Block (100/150/200 thickness)





Hourdi Blocks 420/380 X 200 X 200 (mm)



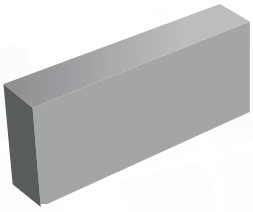


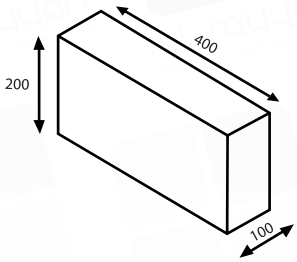
kg/Block (Approx)
18.5

Solid Blocks

Non-Load Bearing class
Load Bearing class

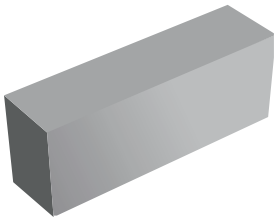
Solid Block 400 X 100 X 200 (mm)

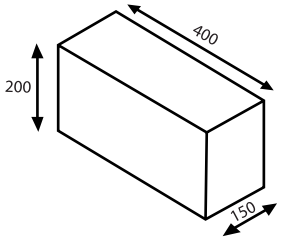




kg/Block (Approx)
17

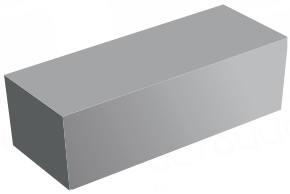
Solid Block 400 X 150 X 200 (mm)

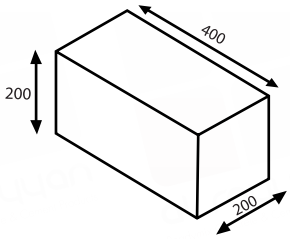




kg/Block (Approx)
25.5

Solid Block 400 X 200 X 200 (mm)





kg/Block (Approx)
34

Non-Load bearing blocks- Compliance to QCS

Compressive strength (MPa)	Water Absorption %
Average ≥ 7 MPa	Average ≤ 7%
Individual ≥ 5.6 MPa	Individual ≤ 7.5 %

Load bearing blocks for walls below ground- Compliance to QCS

Compressive strength (MPa)	Water Absorption %
Average ≥ 17.4 MPa	Average ≤ 7%
Individual ≥ 14.0 MPa	Individual ≤ 7.5 %

Load bearing blocks for walls- Compliance to QCS

Compressive strength (MPa)	Water Absorption %
Average ≥ 10.4 MPa	Average ≤ 7%
Individual ≥ 8.3 MPa	Individual ≤ 7.5%

Block work installation hints

- Mark on the surface to establish the wall lines of block work.
- Scrub and clean the work surface.
- Blocks must be semi dry or skin wet.
- Mix quantity of mortar, which will be consumed within one and half an hour.
- Lay one row of blocks in position without mortar to establish the spacing of blocks.
- Lay 10-12mm thick mortar for full width bed and a length of two blocks at both ends.
- Lay one block at one end and press gently on the mortar.
- Check for plumb, square and bond.
- Lay one block at other end and press gently.
- Check for plumb, square and bond.
- Use line thread from one end to end.

- Lay mortar for full length of wall.
- Lay the blocks for full length and press gently to align with line thread.
- Remove excess mortar coming out and butter to the cross joints.
- Locate the closure blocks to be near the Centre of the wall.
- Fill and compact the vertical joints with mortar.
- Use straight edge and sprit level to check the level of each course.
- Repeat the above points to build more courses.
- The whole block work to be built in uniform layers.
- As soon as the mortars have initially set, strike the vertical joints and then the bed joints.
- After striking joints, brush the wall joints.

CONFORMITY CERTIFICATE

EXTERNAL NON-LOAD
Hollow Block

Al Rayyan Readymix concrete & Cement products


MATEST

Our stringent in-house quality procedures and processes have won the company an ISO-9001: 2015 certification.

TÜV NORD

CERTIFICATE

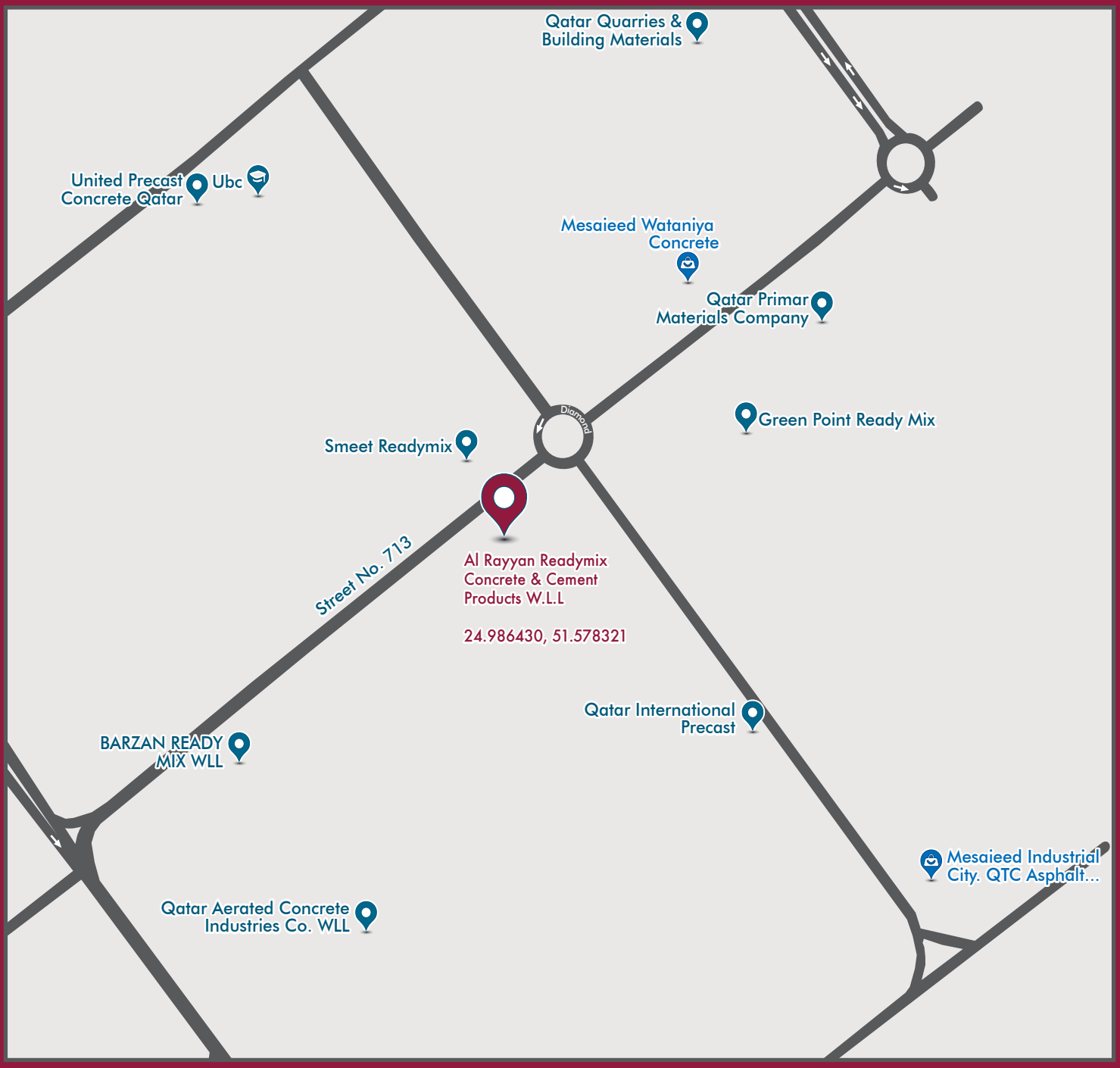
Management system as per
EN ISO 9001 : 2015

ALRAYYAN Readymix Concrete & Cement Products W.L.L.
Mesaieed Industrial Area Street 713, Plot No. 42
P. O. Box 21058, Doha
Qatar

Production and Supply of Cement Products, Concrete Masonry Units, Interlocking Pavers and Kerbstone.

Location Map

Mesaieed Industrial Area



al rayyan
Readymix Concrete & Cement Products

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