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#### **About National Masonry®**

National Masonry® has quickly established itself as the industry leader with exceptional product quality and outstanding customer service with a clear vision of customers for life. We are obsessed with ensuring every customer has a memorable experience with us and to leave you with no doubt that you have made the right choice.

National Masonry®, the new benchmark in masonry.

#### **Pallet Return**

All pallets remain the property of National Masonry®



Call your local branch during office hours.

#### 1800 066 089

## Online Booking Pickup

Use our Pallet Collection Form on our website.

#### www.nationalmasonry.com.au

Product Disclaimer: Concrete Blocks, Bricks, Pavers and Retaining Wall products supplied by National Masonry® are manufactured using raw materials that inherently vary in nature. Whilst all effort is made to produce uniformity in our range of products, variation in colour, texture, and finish can be present. The dimensional characteristics of all products are nominal and variations in length, height, and width can occur from unit to unit which needs to be taken into consideration when installing these products.





#### Why Masonry?

Egyptian Pyramids, Greek Temples, Roman cities, and the Great Wall of China, some of the great masonry structures that have stood the test of time.

#### **Durability**

Building with Designer Block offers the homeowner a number of advantages and benefits, including low maintenance, fire resistance, durability and potential energy savings. Designer Block walls will not rust, corrode, warp, grow mold, or rot. They are extremely weather resistant and can hold up in severe storm conditions and coastal areas. You also don't have to worry about termites for your Designer Block walls.

#### **Fire Resistance**

Designer Blocks are non-combustible and do not assist in the spread of fire. However, using these concrete blocks does not mean your building is fire-proof. Smart building designs that incorporate Designer Block, insulation and other risk management systems will provide a firm foundation and provide greater peace of mind, especially if you are living in a bushfire zone.

#### **Sound Insulation**

Designer Block walls, with their high mass, can block out unwanted noises far better than other lightweight building materials. Concrete masonry structures are known to provide acoustic insulation especially for low frequency noises caused by building mechanical systems, elevators, amplified music, traffic and aircraft. This results in a quieter home environment, and less intrusion from your noisy neighbours' loud stereos or heavy trucks passing by at 2 o'clock in the morning.

#### **Thermal Comfort**

Designer Block walls have high thermal mass. This provides the walls with the advantage of taking longer to heat up and to cool down, and is especially useful in climates where there is a big difference between day and night temperatures. With well-designed and insulated concrete masonry walls, the concrete blocks gradually absorb heat from the sun and keep the building cooler during the hottest part of the day in summer. In winter, concrete masonry holds the building's heat longer, keeping occupants warmer.

#### **Energy Efficiency**

Designer Block are high thermal mass products which slow the transfer of temperature fluctuations from the outside to internal living areas. Heating and cooling make up 39% of the average home's energy use. By combining concrete masonry and insulation, you can save on energy needed for heating and cooling of your home.

#### Range of Colours and Textures

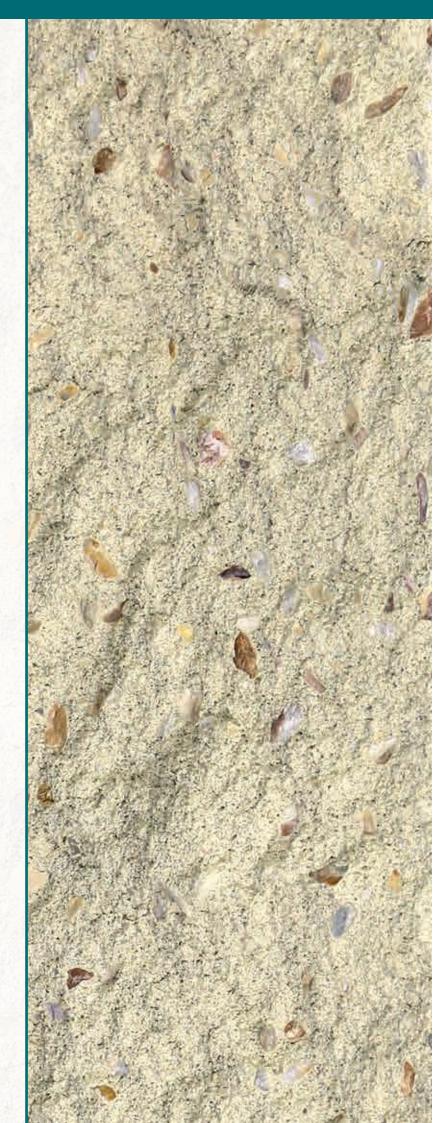
With 5 colours, 5 finishes and a multitude of sizes, Designer Block offers you a wide range of products to choose from to suit your next project.

#### **Cost Effective**

When considering the complete building system, Designer Block can reduce the need for accessory products such as sarking and insulation. They are much faster to build with than some commonly used walling materials and have the added benefit of being both structural and aesthetic.

#### **Termite Resistant**

Designer Block products can't be degraded by termites or white ants. As there is no wood for the termites to eat.





# National Masonry's Designer Blocks are the leading range of architectural masonry blocks

National Masonry's Designer Range has the leading range of decorative masonry blocks available. Blocks are available in Five contemporary colours in either Smooth, Honed, Shot-blast, Polished or Split Face finishes. Whether large or small, National Masonry's Designer Blocks will give your next project the winning edge.

#### **Value Added Finishes**

Value added (Shot-blast, Honed, Polished and Split Face) Designer Blocks are supplied as single face products unless extra faces are value added at your request. The reverse sides of Split Face blocks are not suitable for face work and cannot be value added. When only one face is value added, the back side of the block may not be suitable as a face finish due to the value adding process. If both faces are value added, both faces will be suitable for face work but care will be required when laying as there may be a 2-5mm difference in the width of the individual blocks due to the various value adding processes.

#### **Important Designer Range Information**

#### **Lead Time**

As Designer Block and ULTRA BRICK are generally made to order, lead times apply to all orders for these products. Longer lead times of up to 6-8 weeks may apply to Honed, Polished and Shot-blast finishes as they must be fully cured for several weeks so they are hard enough for these finishes to be applied. However, we do endeavour to supply urgent projects sooner where possible, so please always check how we can best accommodate your particular project's needs.

#### **Colour and Texture Variation**

Some variation in block colour, aggregate colour and aggregate size may occur from samples and previous batches as natural variations do occur in the stones and other components we use to make Designer Block. Therefore colour variation can occur from batch to batch making it essential to order all product requirements at the same time. National Masonry® recommends part size blocks are cut on site to maintain colour consistency. Fractions listed on pages 24-26 are normally cut to size from the full blocks we've made for your project to ensure consistency of colour and finish.

#### **Blending**

To obtain a consistent finish and mitigate colour variation, National Masonry® strongly recommends "blending" which is drawing product from multiple pallets on-site.

#### **Blocks & Bricks Storage**

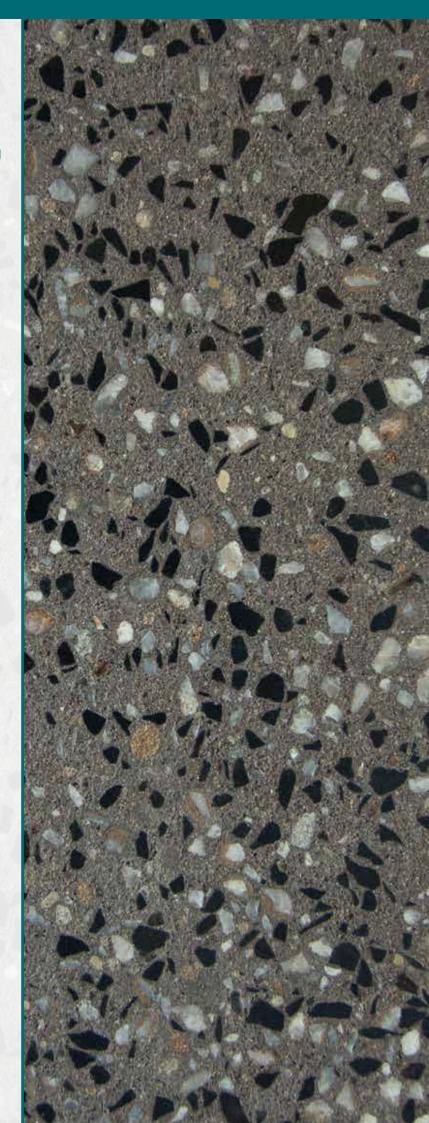
Blocks must be kept dry on site before use and when laid. Freshly laid walls must be covered overnight and when rain interrupts work in order to prevent moisture entering the cores of the blocks. Failing to do this will increase the likelihood of efflorescence.

#### Mortar

Designer Blocks contain a premium water repellent and efflorescence inhibiting additive. To complete the system, an additive must be used in mortar mix. National Masonry® supply and recommend TECH-DRYAD Mortar Additive. The consumption of additive varies significantly, 20 litres of mortar additive may lay approximately 1000-1500 Designer Blocks.

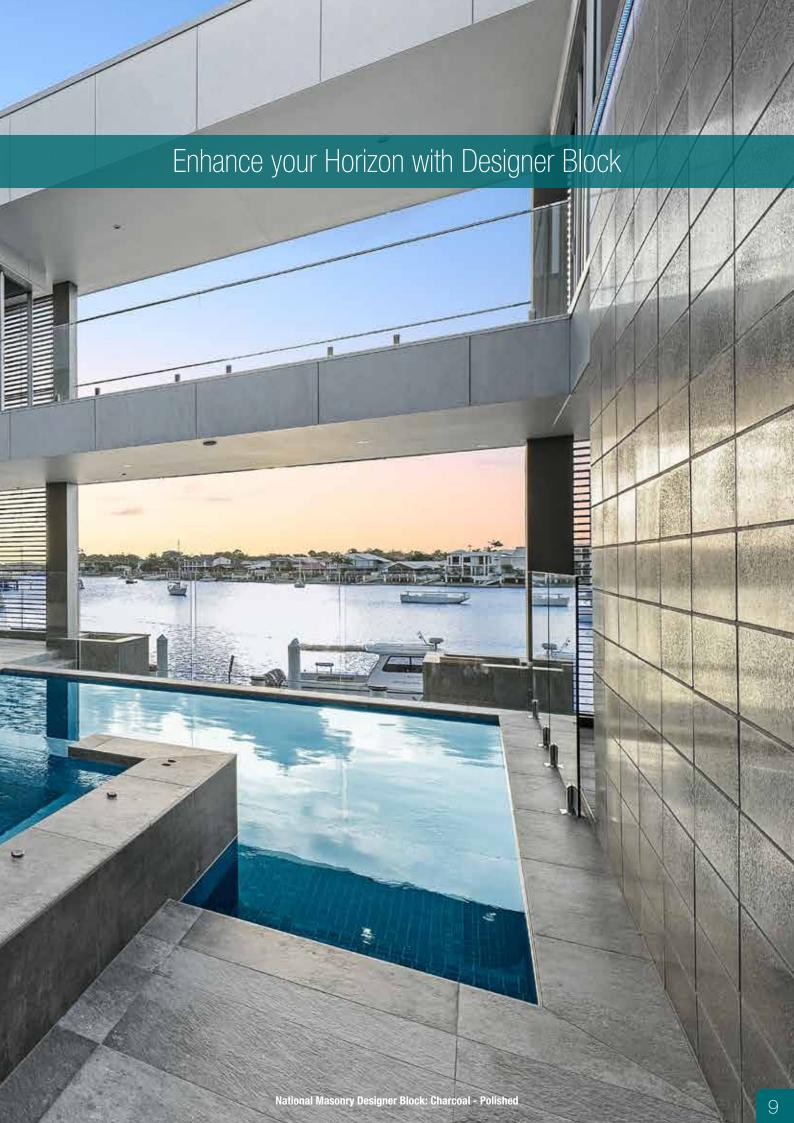
#### Sealing

All Designer Range blocks and bricks should be cleaned and sealed with a quality penetrating sealer after installation. Failure to do so dramatically increases the likelihood and severity of efflorescence and general staining.



# **Five Innovative Textures Smooth** A finely textured finish created through the standard moulding process. **Shot-blast** This process subtly exposes the aggregates, producing a weathered, sawn stone-like finish. **Honed** The honed process grinds 2-3mm from the block surface, producing a matt exposed-aggregate finish. **Polished** This involves producing a denser block which is honed and then buffed. This enriches the colour of the aggregates and creates a reflective, shiny finish. **Split Face**The splitting process produces a bold textured, exposed aggregate finish.





## **Smooth Face**

Using a bespoke combination of fine sands, aggregates, and Bayferrox® Pigments, National Masonry® create a solid fine textured masonry block with crisp sharp lines and rich colours. The use of natural raw materials gives the product its own character which cannot be matched by other more artificially processed building materials.

#### **Benefits**

- · Smooth solid colour texture
- Suitable for load bearing and non-loading applications
- Low to zero maintenance required
- High Fire Protection
- Excellent thermal and acoustic performance
- Manufactured locally by National Masonry® to strict Australian Standards
- · Premium water repellent and efflorescence inhibiting additive
- Bayferrox® colour pigments provide long lasting finish

#### Where to use

- Suitable for load bearing and non-loading applications
- External and internal walls for both residential and commercial projects
- Retaining Walls
- Feature Walls
- Can be core filled for reinforced concrete wall applications

#### Which colour

Available in 5 unique standard colours



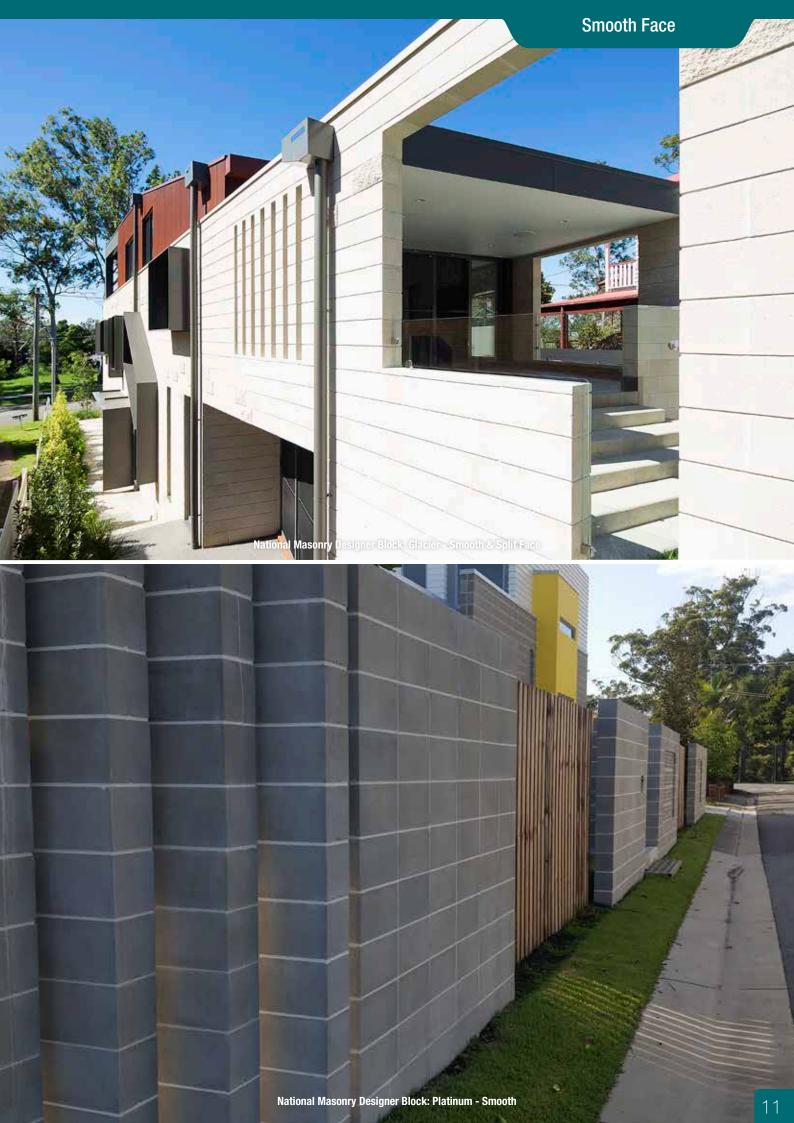




# Sharp lines and rich colours







#### **Shot-blast Face**

The Shot-blast process subtly exposes the aggregates. Using a bespoke combination of fine sands, aggregates, and Bayferrox® Pigments, National Masonry® create a masonry block with provides a natural aesthetic texture to external and internal walls.

#### **Benefits**

- · Weathered, sawn, stone-like finish.
- · Suitable for load bearing and non-loading applications
- · Low to zero maintenance required
- High Fire Protection
- Excellent thermal and acoustic performance
- Manufactured locally by National Masonry® to strict Australian
- · Premium water repellent and efflorescence inhibiting additive
- Bayferrox® colour pigments provide long lasting finish

#### Where to use

- Suitable for load bearing and non-loading applications
- External and internal walls for both residential and commercial projects
- · Retaining Walls
- Feature Walls
- Can be core filled for reinforced concrete wall applications

#### Which colour

Available in 5 unique standard colours





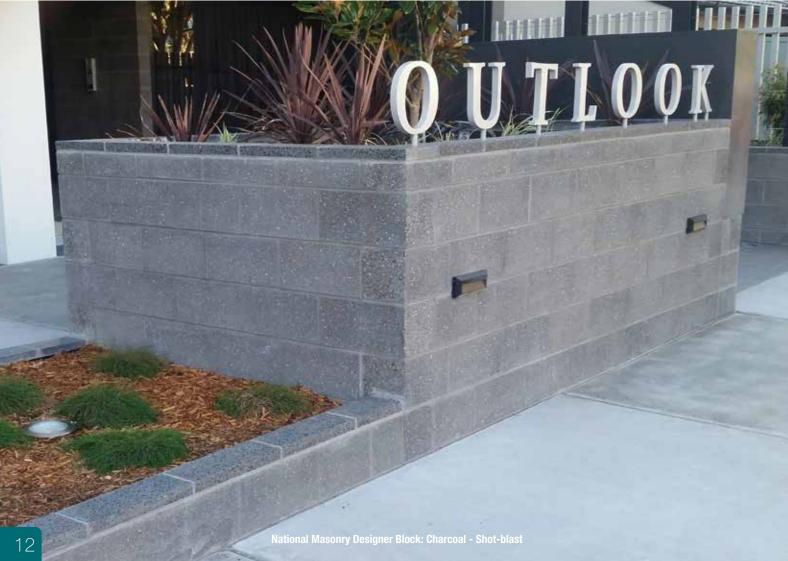


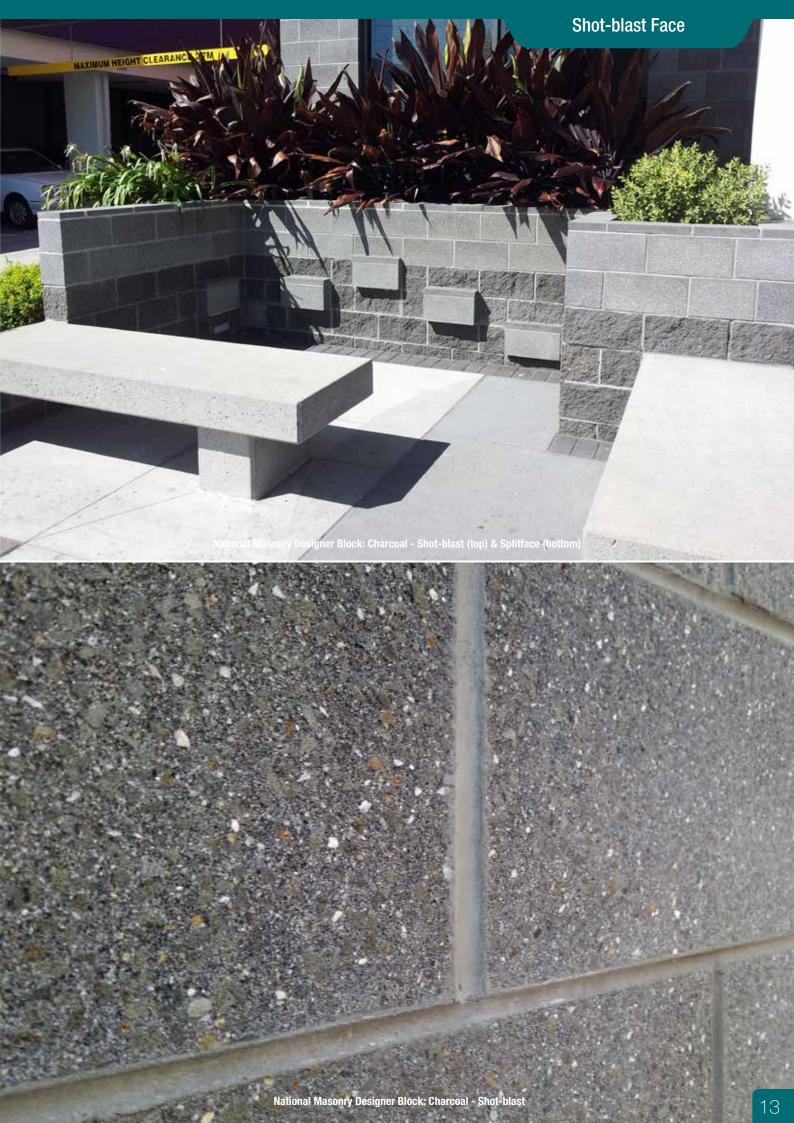




# Natural weathered look







## **Honed Face**

With the Honing process, 2-3mm from the surface is removed by grinding. Either used individually, or combined with other surface textures, this will assist in the visual appeal of contemporary designs whether commercial or residential.

20.01

#### **Benefits**

- Matt finish.
- · Suitable for load bearing and non-loading applications
- Low to zero maintenance required
- High Fire Protection
- Excellent thermal and acoustic performance
- Manufactured locally by National Masonry® to strict Australian
- Premium water repellent and efflorescence inhibiting additive
- Bayferrox® colour pigments provide long lasting finish

#### Where to use

- Suitable for load bearing and non-loading applications
- External and internal walls for both residential and commercial projects
- Retaining Walls
- Feature Walls
- Can be core filled for reinforced concrete wall applications

#### Which colour

Available in 5 unique standard colours







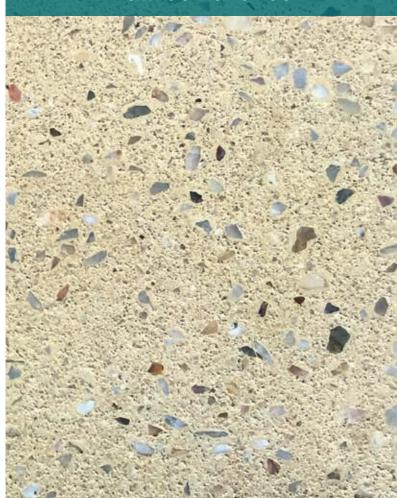


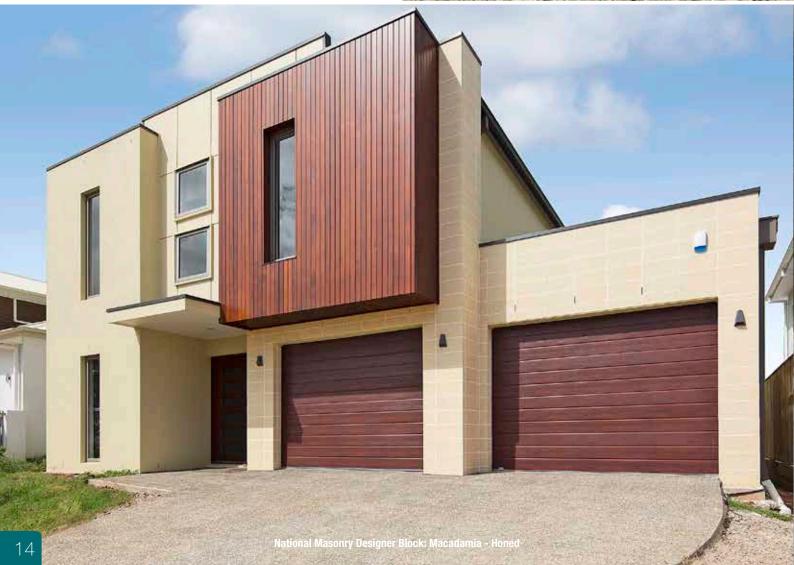


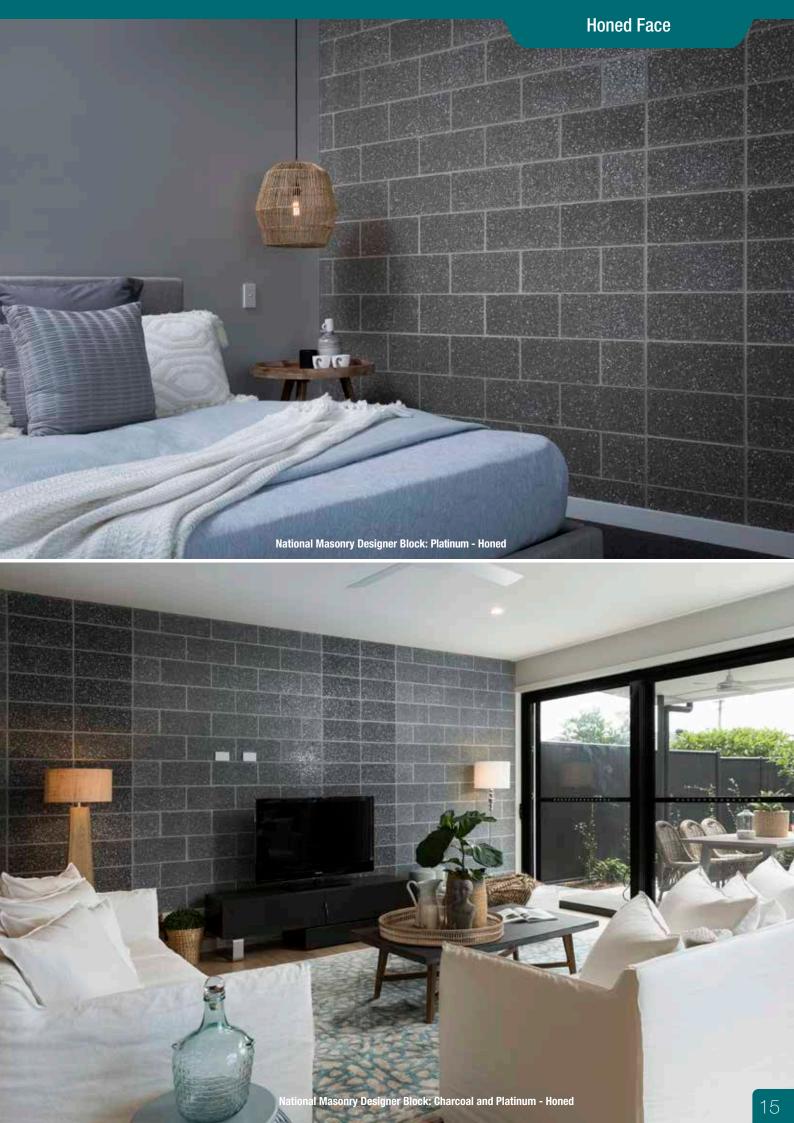




Matt look and feel







## **Polished Face**

Using a bespoke combination of fine sands, aggregates, and Bayferrox® Pigments, National Masonry® first create a solid fine textured masonry block with crisp sharp lines and rich colours. The polishing process begins by grinding the surface layer off the block revealing the fine sands and aggregates in a matte finish. Using a diamond head, the face is then mechanically polished to provide a glass like finish.

#### **Benefits**

- Prestigious high polish exposed aggregate face emulates a natural stone finish
- Suitable for load bearing and non-loading applications
- Low to zero maintenance required
- High Fire Protection
- Excellent thermal and acoustic performance
- Manufactured locally by National Masonry® to strict Australian Standards
- · Premium water repellent and efflorescence inhibiting additive
- Bayferrox® colour pigments provide long lasting finish

#### Where to use

- · External and internal walls for both residential and commercial projects
- · Retaining Walls
- · Feature Walls
- Can be core filled for reinforced concrete wall applications.

#### Which colour

Available in 5 unique standard colours









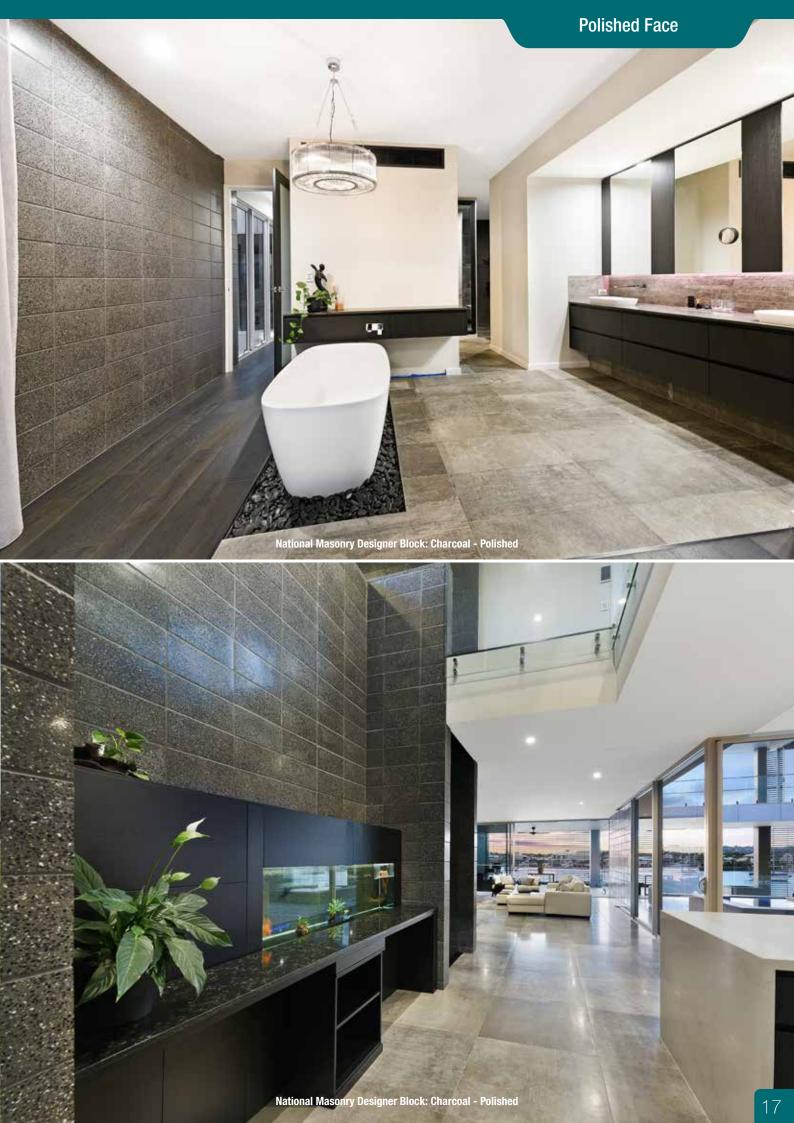




# Rich colours, glass like finish







## **Split Face**

The Split Face block recreates a traditional masonry rock face finish with its bold textures and exposed aggregate finish. Crafted from a single master block, the splitting process uses a diamond tip bolster to split the block to reveal a striking rock face finish.

#### **Benefits**

- Exposed aggregate rock face look
- Suitable for load bearing and non-loading applications
- Low to zero maintenance required
- High Fire Protection
- Excellent thermal and acoustic performance
- Manufactured locally by National Masonry® to strict Australian
- · Premium water repellent and efflorescence inhibiting additive
- Bayferrox® colour pigments provide long lasting finish

#### Where to use

- · External and internal walls for both residential and commercial projects
- · Retaining Walls
- Feature Walls
- Can be core filled for reinforced concrete wall applications

#### Which colour

Available in 5 unique standard colours









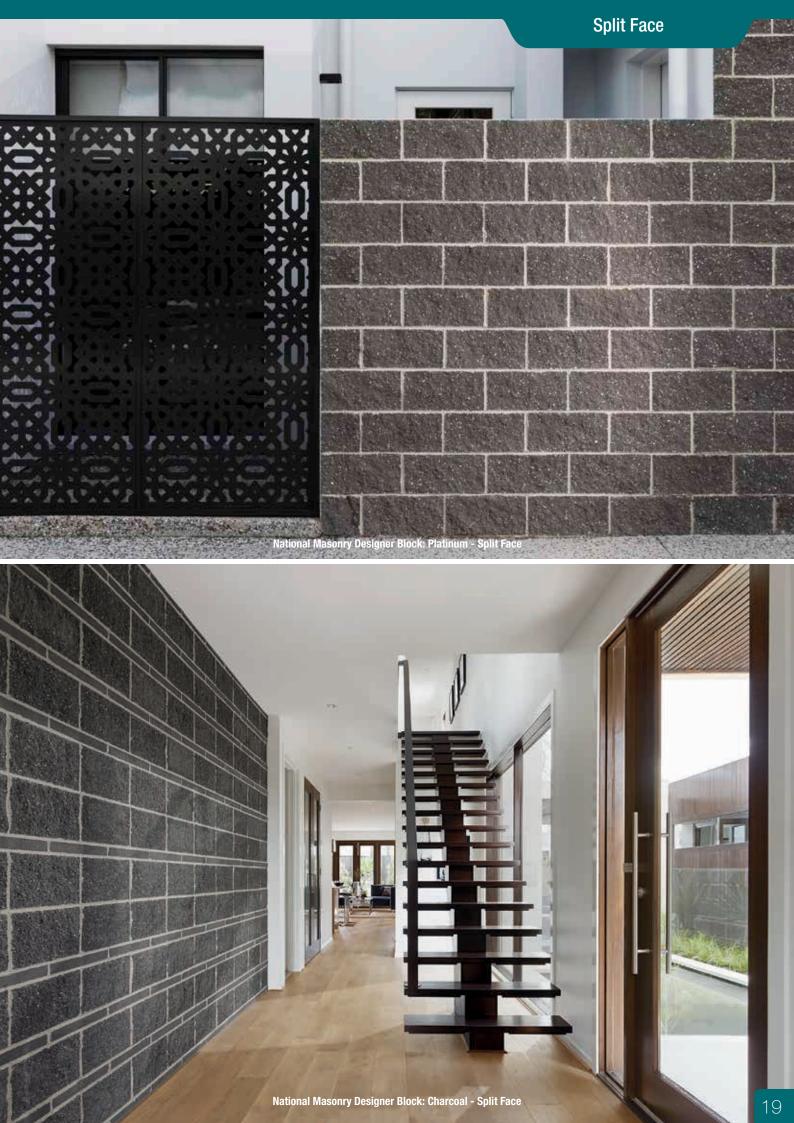




# Traditional masonry rock face







#### **ULTRA BRICK**

Not just another brick, the ULTRA BRICK has been designed and engineered from the ground up delivering a premium pressed brick with a finish to suit any budget. A bespoke mix of raw materials have been combined with the latest pressing technology to produce a brick that is perfect in shape, consistency, durability, and easy to lay. Delivering crisp lines, rich colour and texture, the ULTRA BRICK is the brick range for the 21st Century.

#### **Benefits**

- Finely texture surface with Bayferrox® pigments for vibrant long lasting colour
- Sika® additive to reduce likelihood of efflorescence
- · No need to paint or render
- Non combustible
- Won't rot, rust, or delaminate
- Manufactured locally by National Masonry®

#### Where to use

- External and internal walls
- Feature walls
- Fences



#### A finish for every style

# Platinum Charcoal Terracotta Coco

Charcoal

Charcoal

Charcoal

Terracotta

Terracotta

Coco

Glacier

#### Finish Description

#### Smooth

The smooth face texture uses the finest grade of sand and world class pigments to prove a rich finely texture solid colour finish.

#### Honed

The honed finish has its own special blend of materials. These bricks have the face carefully ground exposing the premium selected aggregates producing an elegant honed finish.

#### Polished

Polished bricks are honed once then processed a second time but with very fine polishing heads to give a glass-like, reflective finish.



Platinum









This process exposes the aggregates, creating a coarse texture with a weathered stone appearance.

Shot-blast

#### Technical

Name	Dimensions (mm)	Weight per unit (kg)	Units per m²	Units per pallet
ULTRA BRICK	230x110x76	3.8	50	500

# Premium look. Ultra results.



The National Masonry® Breeze Block collection has revitalised a 1970's icon into a modern day contemporary classic. Brimming with sharp lines, vibrant texture, and rich colour, these modern day classics will compliment a diverse range of projects. National Masonry® Breeze Blocks can create unique walling and feature solutions that provide permeability of light and air that are aesthetic in character with the durability and practicality that you come to expect in a masonry unit. These crafted units are finished with a lightly honed face leaving no doubt they are a premium architectural finished product that are at home in the most humble of applications through to striking features in a modern master piece.

#### **Benefits**

- Three contemporary designs
- Durable masonry construction
- Versatile
- Non flammable
- Lightweight
- · Honed finish on both faces
- Bayferrox® colour pigments provide long lasting finish

#### Where to use

- Suitable for indoor & outdoor applications
- · Can use horizontal & vertically
- · Privacy screen
- · Room partition
- Patios & outdoor living areas
- Features
- · Increase light or ventilation

#### Which colour



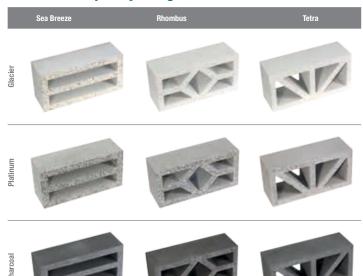


Platinum

rcoal

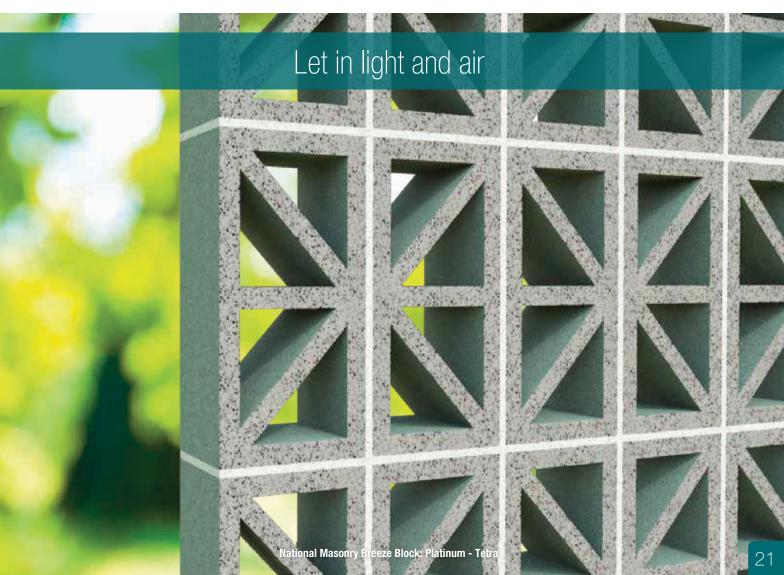
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#### Fresh contemporary designs



#### **Technical**

Name	Dimensions (mm)	Weight per unit (kg)	Units per m²	Units per pallet
Sea Breeze	390x190x140	12.7	12.5	108
Rhombus	390x190x140	12.2	12.5	108
Tetra	390x190x140	12.2	12.5	108



# Prevention is better than cure

#### **Brick & Blocklaying**

- Good laying practice and site procedures are necessary for controlling efflorescence to a reasonable level; it is desirable to store masonry off the ground and loosely cover with a waterproof membrane during rain.
- Poor building practice such as partially built walls left uncovered during rain, allow rainwater to enter block cavities and leach free lime to the surface.
- During construction of the wall, it is essential the blockwork is kept clean from mortar smears. Hydrochloric acid should not be used as it may permanently damage the face of your wall.

#### Mortar

- Brickies Loam SHOULD NOT BE USED for masonry mortar. Clean sharp sand, such as pit sand, or plasterer's sand is more suited.
- Designer Blocks contain a Premium water repellent and efflorescence inhibiting additive.
- To ensure the ultimate in consistency of strength, bonding and colour, National Masonry® can supply Premium Pre-Mixed Mortar in 20kg bags in a range of colours to suit your application. Just add water and TECH-DRYAD, no other additives required.
- The preferred finish for mortar joints in Designer Blockwork is ironed finish which
  provides the following benefits; the iron tool compresses the mortar at the face of
  the masonry, making it denser and more durable. The mortar is pushed against the
  top and bottom faces of the blocks, improving the bond between the mortar and
  block.

#### **Blockfilling**

- The grout used to fill the cores or blockwork walls should be specified as follows, concrete 20MPA strength & Cement Content not less than 300kg/m³.
- · Coarse Aggregate of 10mm.
- All corefilled walls must be cleaned thoroughly immediately following filling to ensure lime leaching from the corefill through unprotected capillary pores does not stain the surface of the blockwork.

#### Coping and flashing

Walls and parapets should have protection such as flashings or capping to the
top of the surface. A common source of staining and efflorescence of masonry is
water entering walls and cavities at this point via exposed horizontal surface. If
this is not possible, the top of the blockwork must be sealed using EMER-CLAD
WATERPROOFING MEMBRANE or EQUIVALENT before the capping is bedded to
waterproof the top surface.

#### Cleaner

- The cleaner the block layer leaves the wall the easier the cleaning task will be. However, in most cases, some additional cleaning will be required to achieve the desired outcome.
- The appropriate cleaning method depends on the purpose of the cleaning and on the extent of the work to be done. CMAA Concrete Masonry Structures Cleaning and Maintenance Table 4.2 offer a general guide.
- ENVIRONEX ANTI-EFF or EQUIVALENT is especially suited to the removal of efflorescence from masonry surfaces and can be purchased from National Masonry<sup>®</sup> and our distributors along with recommended sealers.

#### Sealer

- All Designer Range bricks and blocks should be cleaned and sealed with a quality penetrating sealer after installation.
- We stock and recommend Environex and Enviroshield sealers with a range of budget
  and premium options to suit your requirements. Whether you would like a natural
  appearance or colour enhancement, protection from salt in coastal areas, budget
  sealers or premium sealers with conditional 15 year guarantees, National Masonry®
  and our distributors can help you protect and enhance your Designer Block investment.

#### **Efflorescence**

- Efflorescence generally presents as white minerals forming on the surface of masonry and is a normal part of the curing process of concrete. Good laying practices and site procedures are necessary to minimise its occurrence.
- Efflorescence does not affect the structural integrity or strength of the product.
- It may be removed by stiff brush or the application of ENVIRONEX ANTI-EFF OR EQUIVALENT. Read suppliers instructions before use.
- Wall sealers also help to prevent future efflorescence, mould growth and general staining by reducing absorption of water which can draw dirt and dust into an unsealed masonry face.
- The use of additives in the production of Designer Blocks and the additives
  recommended for use in the above literature are to help mitigate the appearance of
  efflorescence, it does not guarantee that it will not occur.
   The presence of and/or severity of efflorescence is not a manufacturing fault and no
  warranty or consequential damages are accepted by the manufacturer.





## **Smooth, Shot-Blast, Honed and Polished Face**

Image	Product	Name	Dimensions (mm)	Available Finishes	Available Colours	Weight per	Units per
190	10.01	Standard	390x190x90	Smooth Face, Shot-blast Face, Honed Face, Polished Face	Charcoal, Coco, Glacier, Macadamia, Platinum	unit (kg)	pallet*
190	10.02	Three Quarter Length	290x190x90	Smooth Face, Shot-blast Face, Honed Face, Polished Face	Charcoal, Coco, Glacier, Macadamia, Platinum	8.1	240
190	10.03	Half Length	190x190x90	Smooth Face, Shot-blast Face, Honed Face, Polished Face	Charcoal, Coco, Glacier, Macadamia, Platinum	5.5	360
192	10.31	Solid	390x190x90	Smooth Face, Shot-blast Face, Honed Face, Polished Face	Charcoal, Coco, Glacier, Macadamia, Platinum	14.8	156
90 900	10.71	Half Height	390x90x90	Smooth Face, Shot-blast Face, Honed Face, Polished Face	Charcoal, Coco, Glacier, Macadamia, Platinum	5.3	390
190	15.01	Standard	390x190x140	Smooth Face, Shot-blast Face, Honed Face, Polished Face	Charcoal, Coco, Glacier, Macadamia, Platinum	12.7	144
190	15.02	Three Quarter Length	290x190x140	Smooth Face, Shot-blast Face, Honed Face, Polished Face	Charcoal, Coco, Glacier, Macadamia, Platinum	10.6	160
190	15.03	Half Length	190x190x140	Smooth Face, Shot-blast Face, Honed Face, Polished Face	Charcoal, Coco, Glacier, Macadamia, Platinum	6.4	240
100	15.42	Channel	390x190x140	Smooth Face, Shot-blast Face, Honed Face, Polished Face	Charcoal, Coco, Glacier, Macadamia, Platinum	12.6	144
100	20.01	Standard	390x190x190	Smooth Face, Shot-blast Face, Honed Face, Polished Face	Charcoal, Coco, Glacier, Macadamia, Platinum	16.2	108
100	20.02	Three Quarter Length	290x190x190	Smooth Face, Shot-blast Face, Honed Face, Polished Face	Charcoal, Coco, Glacier, Macadamia, Platinum	11.5	144
190	20.03	Half Length	190x190x190	Smooth Face, Shot-blast Face, Honed Face, Polished Face	Charcoal, Coco, Glacier, Macadamia, Platinum	9.0	180
192	20.42	Channel	390x190x190	Smooth Face, Shot-blast Face, Honed Face, Polished Face	Charcoal, Coco, Glacier, Macadamia, Platinum	15.9	108
100 100	20.71	Half Height	390x90x190	Smooth Face, Shot-blast Face, Honed Face, Polished Face	Charcoal, Coco, Glacier, Macadamia, Platinum	7.6	216

<sup>\*</sup> Pallet quantities listed are for Smooth product, other finishes may vary.

## **Smooth, Shot-Blast, Honed and Polished Face**

Image	Product	Name	Dimensions (mm)	Available Finishes	Available Colours	Weight per unit (kg)	Units per pallet*
300 300	30.01	Standard	390x190x290	Smooth Face, Shot-blast Face, Honed Face, Polished Face	Charcoal, Coco, Glacier, Macadamia, Platinum	20.82	72
200	30.42	Channel	390x190x290	Smooth Face, Shot-blast Face, Honed Face, Polished Face	Charcoal, Coco, Glacier, Macadamia, Platinum	25.0	72
100	30.925	Single Core	390x190x290	Smooth Face, Shot-blast Face, Honed Face, Polished Face	Charcoal, Coco, Glacier, Macadamia, Platinum	20.6	72
S00	50.31	Capping Tile	390x40x190	Smooth Face, Shot-blast Face, Honed Face, Polished Face	Charcoal, Coco, Glacier, Macadamia, Platinum	6.7	270
76 250		ULTRA BRICK	230x76x110	Smooth, Honed, Shot-blast Polished Face	Charcoal, Coco, Glacier, Macadamia, Platinum	3.8	500
140 390	Breeze Block	Sea Breeze	390x190x140	Honed Face Both Sides	Glacier, Platinum, Charcoal	12.7	108
140 590	Breeze Block	Rhombus	390x190x140	Honed Face Both Sides	Glacier, Platinum, Charcoal	12.2	108
140 300	Breeze Block	Tetra	390x190x140	Honed Face Both Sides	Glacier, Platinum, Charcoal	12.2	108

<sup>\*</sup> Pallet quantities listed are for Smooth product, other finishes may vary (Breeze Blocks are as listed)

Find detailed information and download more guides at our website - www.nationalmasonry.com.au

## **Split Face**

Opine i doc	,						
lmage	Product	Name	Dimensions (mm)	Available Finishes	Available Colours	Weight per unit (kg)	Units per pallet
300	10.101	Standard	390x190x90	Split Face	Charcoal, Coco, Glacier, Macadamia, Platinum	14.8	108
00 10 200	10.109	Half Height	390x90x90	Split Face	Charcoal, Coco, Glacier, Macadamia, Platinum	8.0	216
120	20.121	Standard	390x190x190	Split Face	Charcoal, Coco, Glacier, Macadamia, Platinum	17.5	108
100 100 100 100 100 100 100 100 100 100	20.123	Half Length	190x190x190	Split Face	Charcoal, Coco, Glacier, Macadamia, Platinum	11.1	180
100 200	20.127	Half Height	390x90x190	Split Face	Charcoal, Coco, Glacier, Macadamia, Platinum	8.75	180
1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	20.139	Corner Return	390x190x190	Split Face	Charcoal, Coco, Glacier, Macadamia, Platinum	18.9	90
11 7 100	20.141	Corner Return Half	190x190x190	Split Face	Charcoal, Coco, Glacier, Macadamia, Platinum	12.3	180
100	20.142	Channel	390x190x190	Split Face	Charcoal, Coco, Glacier, Macadamia, Platinum	17.0	108
330	30.121	Standard	390x190x290	Split Face	Charcoal, Coco, Glacier, Macadamia, Platinum	22.0	72
390	30.142	Channel	390x190x290	Split Face	Charcoal, Coco, Glacier, Macadamia, Platinum	25.75	72

## Accessories

Image	Name	Size	Image	Name	Size
Sealer	Environex Clearseal (economical water based sealer - does not affect colour)	1L, 5L, 15L		Mortar Sand - Full Bulka Bag	1200kg
Sealer	Environex HiLite or Enviroshield Enhancer Plus (semi penetrating colour enhancing - Hi-Lite has a 15 year conditional stain resistance warranty)	2L, 10L, 20L		Mortar Sand - Half Bulka Bag	620kg
Sealer	Environex Synergy or Enviroshield Consolidator Plus (penetrating and consolidating to resist stains, strengthen he surface and resist salt attack without affecting colour - ynergy has a 15 year conditional stain resistance warranty)	2L, 10L, 20L		Concrete Blend - Full Bulka Bag (sand & gravel, just add cement & water)	1200kg
Anti EFF SL	Anti EFF Efflorescence Cleaner	1L, 5L, 15L		Cement - Grey or Off White	20kg
Mortar Additive 20L	TECHDRYAD Mortar Additive (use with Designer Blocks)	20L, 5L	W	ACS Premixed M4 Mortar (Charcoal, Grey, White)	20kg

Block & Brick Estimator	Full Height	Half Height	ULTRA BRICK
Masonry unit face size (L x H mm)	390 x 190	390 x 90	230 x 76
No. Units per m <sup>2</sup>	12.5	25	50

#### Material Quantities for 1m3 of Mortar

- For every 800 full height blocks (390 long x 190 high) or 64m² of wall, approximately 1m³ of mortar mix is required, allowing for wastage.
- There are 12.5 full blocks per square metre of wall surface area.
- There is 50 full bricks per square metre of wall surface.
- For every 800 to 1000 Bricks about 1m3 of mortar mix is required, allowing for wastage.

Approximate Material Quantities f	or 1m³ of Mortar
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Mortar Classification	Grey Block	Designer Range	
M3 Should be used in following	Mix in 1:1:6 proportions	Mix in 1 : 5 proportions	
exposures: Located within 100m to 1km of	Cement: 14 bags (20kg each)	Cement: 16 bags (20kg each)	
non-surf coast or 1km to 10km of — surf coast and above damp proof course.	Lime: 5 bags (20kg each)	Designer Range additive: 8 litres	
In contact with ground in non- aggressive soils. In fresh water. in domestic BBQs and incinerators.	Sand: 1.2m <sup>3</sup> *	Sand: 1.2m³ *	
M4	Mix in 1:0.5:4.5 proportions	Mix in 1:4 proportions	
Should be used in following exposures:	Cement: 18 bags (20kg each)	Cement: 20 bags (20kg each)	
Located within 100m of non surf coast or 1km of surf coast and above damp proof course.	Lime: 3 bags (20kg each)	Designer Range additive: 8 litres	
In contact with ground in aggressive soils. In tidal and splash zones.	Sand*: 1.2m³ *	Sand#: 1.2m3 *	

For convenience and consistency, consider using our Premixed M4 Mortar 20kg bags in a variety of colours - see page 26.

* 20%	extra	sand	included	for	bulking
0.11	D-1-1-1		al .		

#### **Grout for Core Filling**

The correct grout specification (mix design) is critical to achieving the structural design of a reinforced wall. The grout used to fill the cores of blockwork walls should be specified as follow:

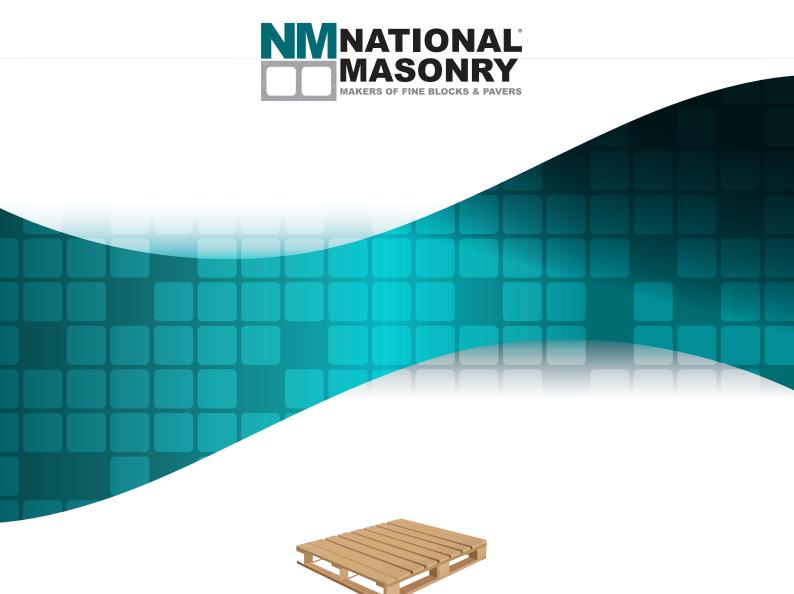
- Grout to comply with AS3700 Clause 10.7.
- Characteristic Compressive Strength 20MPa.
- Cement content not less than 300kg/m3.
- Round aggregate (if any) not more than 10mm.
- Clean sand (1.2m)
- A pouring consistency which ensures that the cores are completely filled and the reinforcement completely surrounded without segregation of the constituents.

#### **Control Joints**

Because of temperature variations and the shrinkage in a concrete masonry wall after construction, it is necessary to provide control joints in blockwork at a max spacing of 6m and at points of potential cracking, e.g. beside openings and at large steps in wall or footing.

- Joint width is 10mm for panels up to 6000mm long.
- Joint sealants should be applied towards the end of construction to minimise the
  effect of panel movement.

Block Type	1m³ Grout
15.01	230
15.48	210
20.01	150
20.48	125
30.01	90
30.42	87
40.925	50



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