

**adbri**MASONRY



**euro**  
DESIGNER PAVING SYSTEM

**EURO<sup>®</sup> PAVING SYSTEM**



# adbri MASONRY

Adbri Masonry is Australia's leading masonry manufacturer supplying quality concrete bricks, blocks, pavers, retaining walls, erosion control products and architectural masonry throughout Australia.

In addition to manufacturing a full complement of high quality products there are a range of other benefits to working with Adbri Masonry including:

- Comprehensive technical testing in our N.A.T.A Accredited Testing Laboratory
- Access to a national transport network
- Access to our Contracting Services Division (internal design, certify, supply and install division)
- Experienced in-house engineers who can provide design support for commercial projects
- Knowledgeable architectural and engineering consultants
- The ability to create customised colour solutions for individual projects. Select products only. Minimum quantities and lead times apply.





# EURO® PAVING SYSTEM

Adbri Masonry's Euro® Paving System is Australia's premium flooring solution.

These designer pavers are masterfully crafted on a state of the art Italian paving machine before samples are tested in our in house N.A.T.A. Accredited Testing Laboratory. Euro® pavers are available in a variety of sizes from small format 300x300mm pavers through to oversized 600x600mm paving slabs. The range consists of six definitive surface textures which present new opportunities to enhance designs with stunning detail that will compliment projects in every environment.

Our natural palette of rich colour tones are created using premium Bayferrox® colour pigments which are hand crafted by colour specialists in Germany.

The use of these quality colour pigments allows Adbri Masonry to blend an array of rich hues that provide increased flexibility and reliability for designers.

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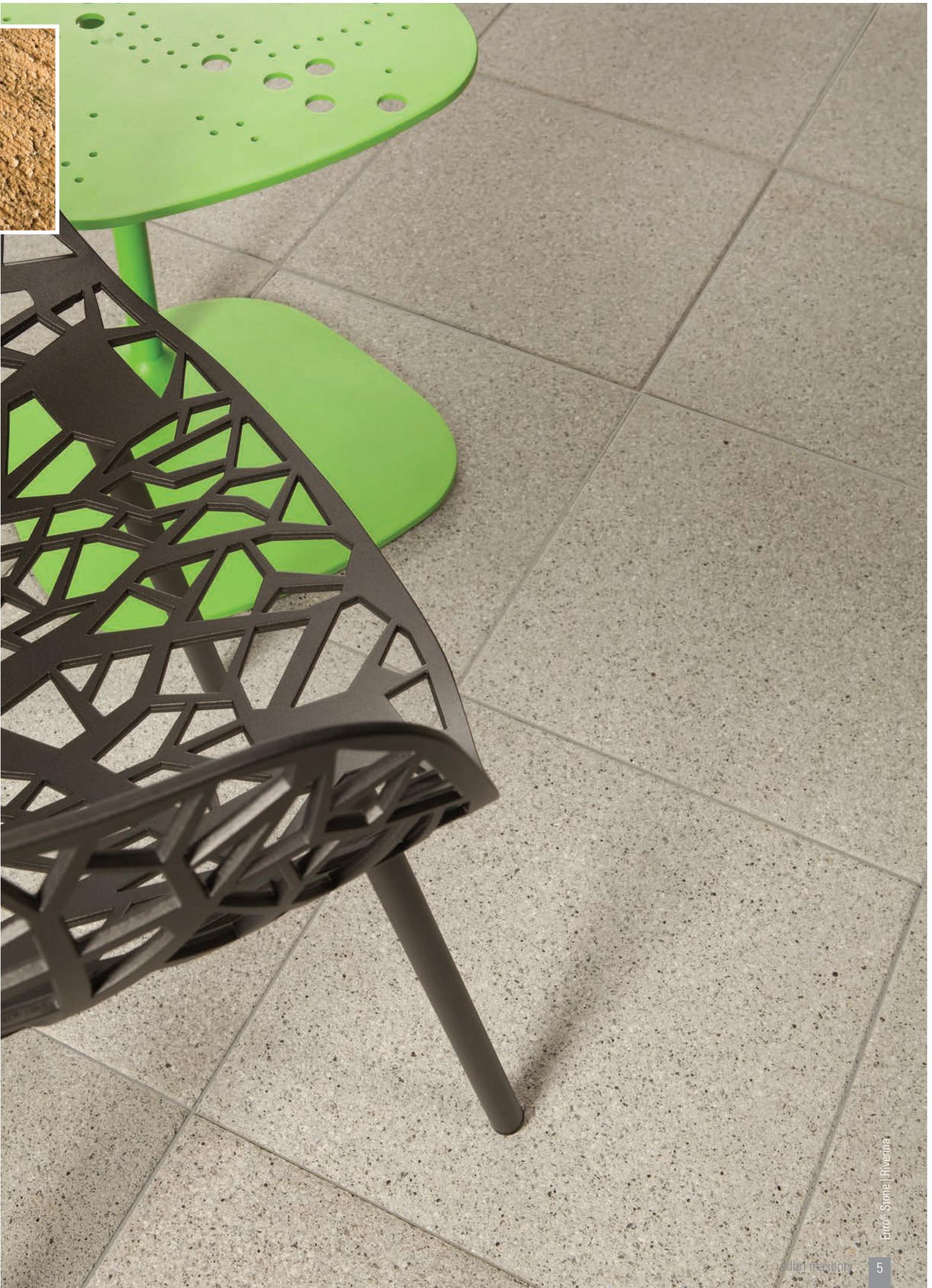


### *100 x 100 Sample Chips*



Once you have selected a Euro® paving solution from the Euro® Paving Range our consultants can provide you with 100 x 100mm samples for use in your client meetings and project boards. These samples are accurate within their tolerances of natural colour variations that may occur in raw materials. Samples should always be sighted before orders are confirmed.



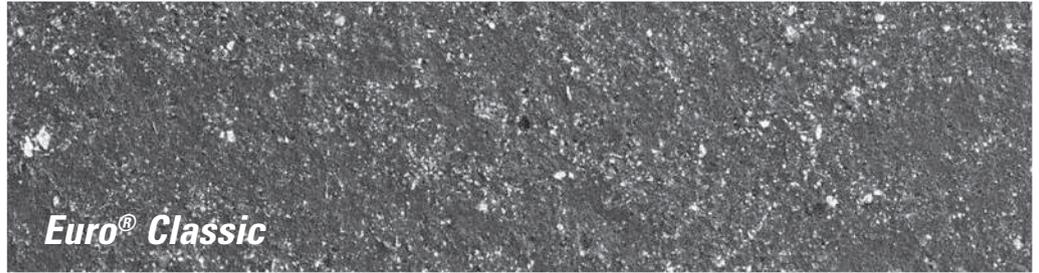


# TEXTURES

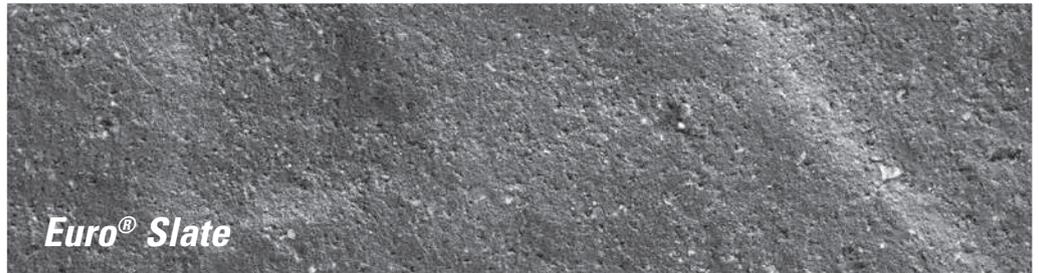
Differentiate your design with one of six distinctive surface textures. The Euro® Classic, Slate and Stone textures are stocked in a range of standard colours. The remaining textures are available as 'Made To Order' products where minimum order quantities and production lead times apply.



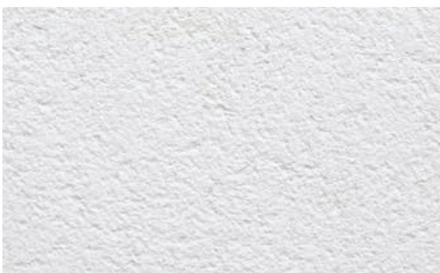
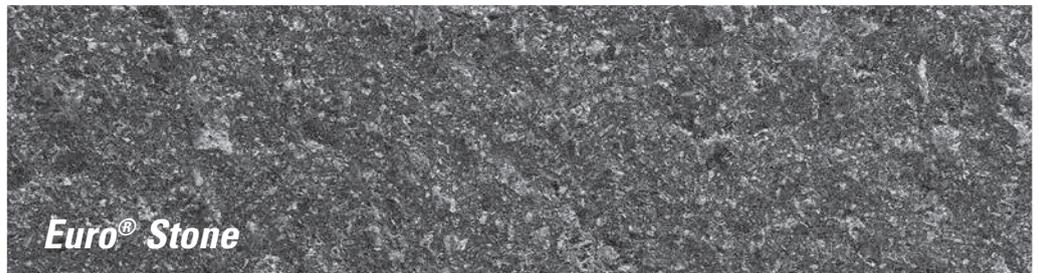
***Euro® Classic***



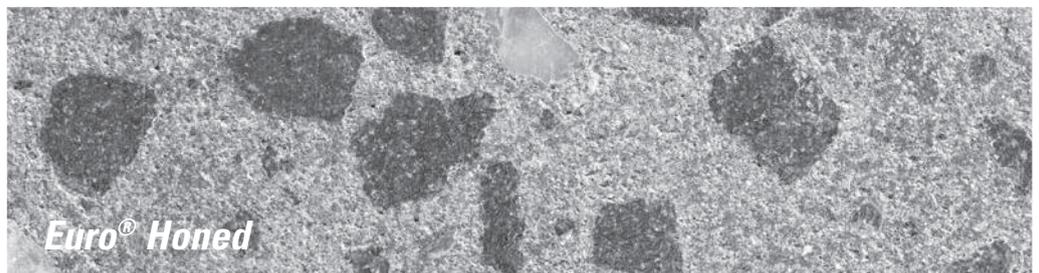
***Euro® Slate***



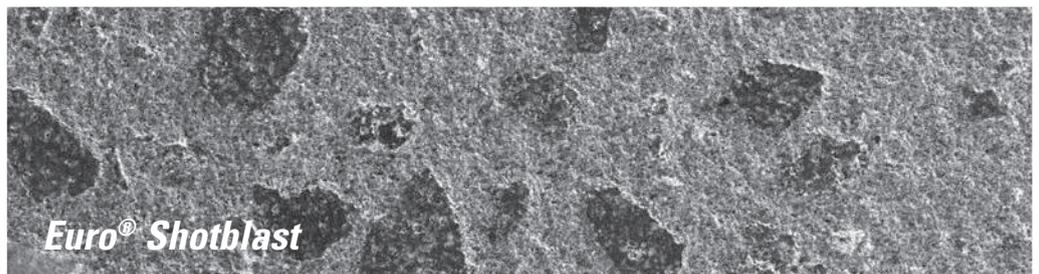
***Euro® Stone***



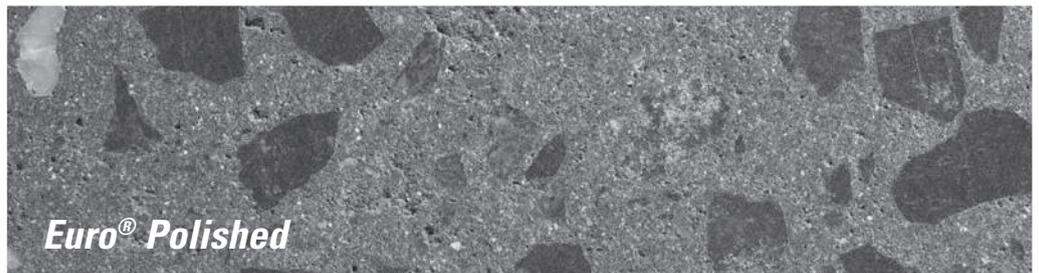
***Euro® Honed***



***Euro® Shotblast***



***Euro® Polished***



# STANDARD COLOURS

## STANDARD COLOUR RANGE

### EURO® CLASSIC AND SLATE COLOUR OPTIONS



ATHENS



CYPRUS\*



PRAGUE

\*Product colour in stock for Euro® Classic and MTO for Euro® Slate and Stone

### EURO® STONE, HONED, SHOTBLAST AND POLISHED



RIVERINA



ZURICH



PRAGUE

*Please note your colour selection will change depending on the finish of the Euro® paver. Please seek samples before ordering products.*

Coloured using

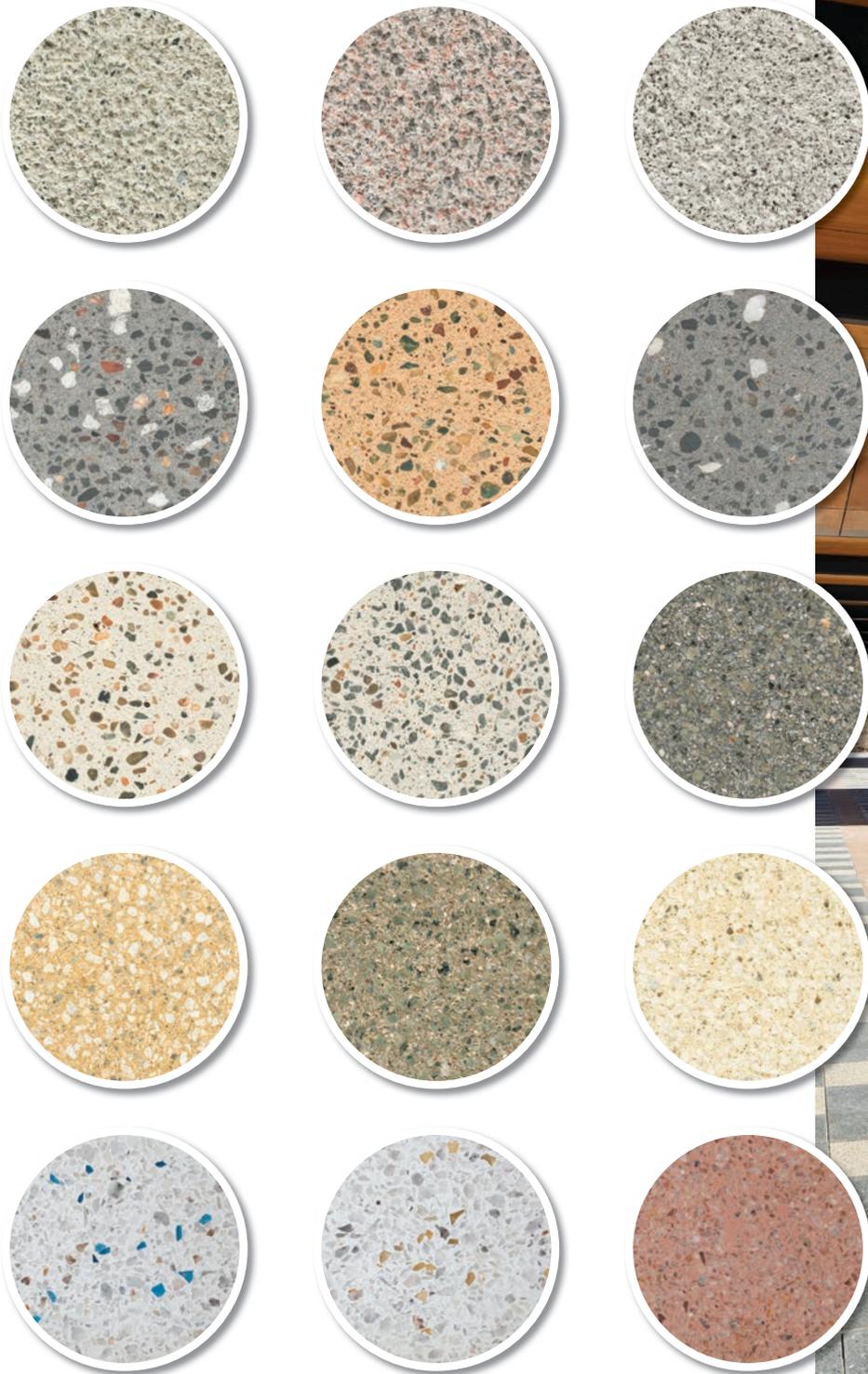


Looking for more colour tones?  
Please turn over to see more options  
from our colour portfolio.



# VISUAL COLOUR PORTFOLIO

Over the years our experienced team has worked with many clients to produce project specific colour and aggregate designs. Samples of our previous creations can be seen below.



## WESLEY COLLEGE PROJECT

Adbri Masonry created over 650m<sup>2</sup> of Euro<sup>®</sup> Honed pavers in three Made To Order colours. The resulting check pattern with tanned streak brought together the many rich elements of this space.

# MADE TO ORDER COLOURS

YOUR  
VISION  
**MTO**  
MADE TO ORDER

While there are a range of standard colours to choose from, creativity has been catered for with the introduction of our personalised Made to Order service. This is ideal for designers looking to create with colour and provide a stamp of individuality on paved projects.

**As your individuality is made to order, minimum quantities and production lead times apply.** Here's how it works;

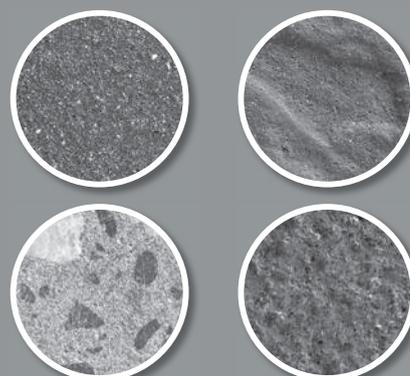
## 1 *Select a base colour*



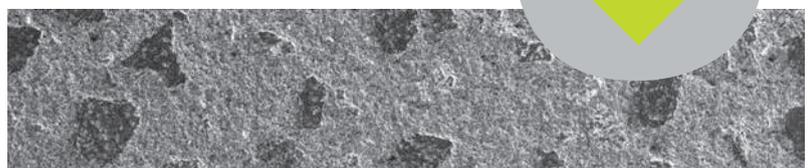
## 2 *Create a blend of aggregates*



## 3 *Choose a texture finish*



### Your Paver Swatch



For more information email us at [enquiries@adbri.com.au](mailto:enquiries@adbri.com.au) or call 1300 365 565



# PAVER SIZES



Paver Sizes Available		Euro® Classic	Euro® Slate	Euro® Stone	Euro® Honed	Euro® Shotblast	Euro® Polished
Standard	400 x 400 x 40mm	•	•	•			
	600 x 400 x 40mm			•			
Made To Order	300 x 300 x 55mm	•		•	•	•	•
	400 x 400 x 30mm			•	•	•	•
	400 x 400 x 40mm				•	•	•
	400 x 400 x 55mm	•	•	•	•	•	•
	600 x 300 x 55mm	•		•	•	•	•
	600 x 400 x 30mm	•		•	•	•	•
	600 x 400 x 40mm	•			•	•	•
	600 x 400 x 60mm	•		•	•	•	•
	600 x 600 x 50mm	•		•	•	•	•

Our Made To Order sizes are not held in stock but made to order for your project. **Minimum quantities and lead times apply.** When applying the Stone, Honed, Shotblast and Polished textures a nominal 3mm is taken from the paver height.



Euro® Shotblast | Made to Order Colour



Euro® Honed | Made to Order Colour

# TACTILE PAVERS

# EDGING OPTIONS

Adbri Masonry's range of quality tactile pavers are practical and hard wearing. Unlike other tactile products, the raised directional and hazardous indicators are incorporated into the design of the paver, giving the benefit of minimal maintenance and ensuring the indicators will not be sheered off.

With a virtually unlimited combination of colours and aggregates available, these vital pavement aides will compliment any project.

## AVAILABLE SIZES



300 x 300 x 40mm

## AVAILABLE FINISHES - Made To Order Product



Hazard Type A



Directional Type C

# TREAD TREATMENTS



Adbri Masonry also offer a range of tread treatment solutions for use in stair applications, all of which comply with Australian Standards. *This option is ONLY AVAILABLE IN NSW.*

All Euro® pavers can have an edge profile applied for use in specific applications such as pool coping and steps.

The Sharknose profile is offered as standard while the other edging options are available as Made To Order products. **Minimum quantities and lead times apply.**

## Standard Edge Profiles



Sharknose

## Special Edge Profiles - Made to Order Products



Full Bullnose



Half Bullnose



Reverse Sharknose



Pencilnose

# Euro<sup>®</sup> Classic



Euro<sup>®</sup> Classic | Prague

*The lightly textured surface of the Euro<sup>®</sup> Classic paver can be used to enhance paved spaces with an understated aesthetic appeal.*



## SIZES



### Standard Size

400 x 400 x 40mm

### MTO (Made To Order)

300 x 300mm | 400 x 400mm | 600 x 300mm | 600 x 400mm | 600 x 600mm

## STANDARD COLOURS



Athens



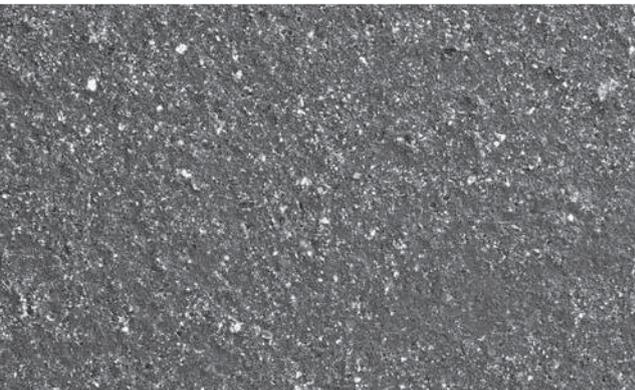
Cyprus



Prague

Choose from a standard colour or create your own.

Minimum quantities and lead times apply for Made To Order products.



Euro® Classic pavers boast a traditional pressed surface texture which features a light abrasion ensuring suitable resistance to slip, making these pavers ideal for all external paving applications. The smooth, flat surface means these pavers are easy to clean and maintain ensuring aesthetic appeal is maintained over time.

timeless >  
untouched >  
natural >



400 x 400 x 40mm

**STOCKED  
PRODUCT**

Euro® Classic		No. per m <sup>2</sup>	Unsealed slip resistance
Standard	400 x 400 x 40mm	6.25	<b>P5</b> Very low risk of slipping on surface when wet
Made To Order	300 x 300 x 55mm	11.1	
	400 x 400 x 30mm	6.25	
	400 x 400 x 55mm	6.25	
	600 x 300 x 55mm	5.55	
	600 x 400 x 30mm	4.17	
	600 x 400 x 40mm	4.17	
	600 x 400 x 60mm	4.17	
	600 x 600 x 50mm	2.78	

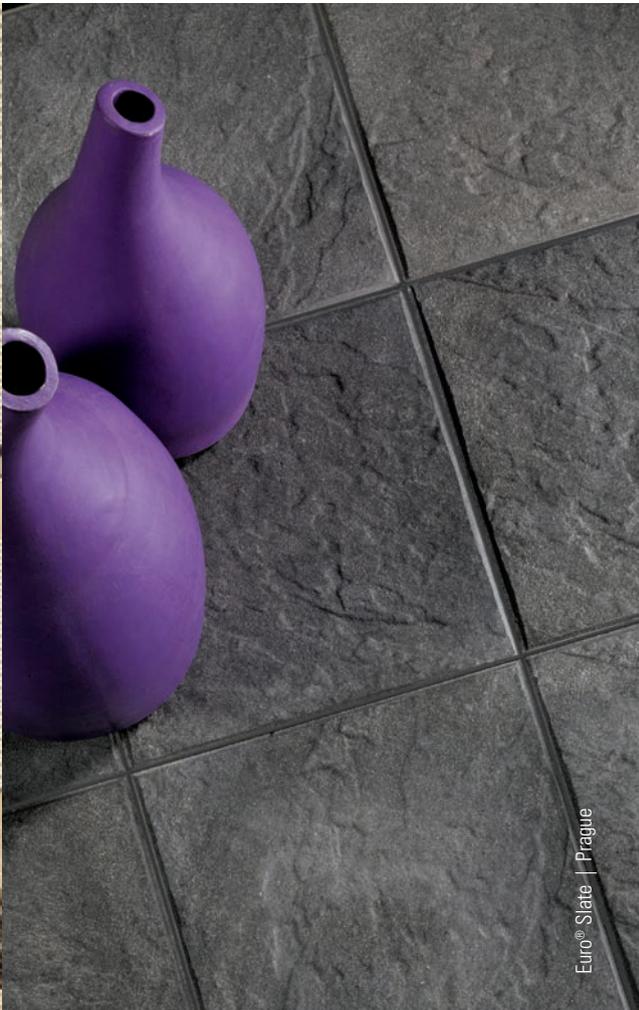
Our Made To Order products are not held in stock but are available. Minimum quantities and lead times apply for Made To Order products.

# Euro<sup>®</sup> Slate



Euro<sup>®</sup> Slate | Athens

*The random, windswept aesthetic of the Euro<sup>®</sup> Slate paver brings the look and feel of traditional European style to your paved spaces.*



## SIZE



### Standard Size

400 x 400 x 40mm

## STANDARD COLOURS



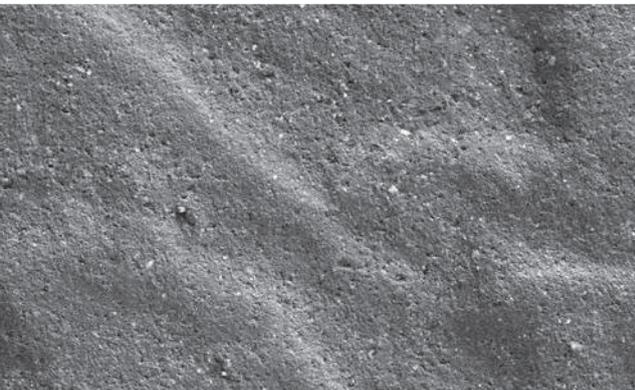
Athens



Prague

Choose from a standard colour or create your own.

Minimum quantities and lead times apply for Made To Order products.



Euro® Slate pavers are finished with a European inspired random undulation pattern replicating natural slate stone. These pavers are ideal for highlight and feature areas of larger paved surfaces. Euro® Slate pavers are especially suited for use in all outdoor areas including swimming pool surrounds.

eroded >  
windswept >  
undulated >



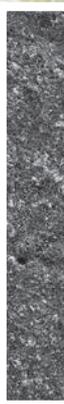
**STOCKED  
PRODUCT**

400 x 400 x 40mm

Euro® Slate		No. per m <sup>2</sup>	Unsealed slip resistance
Standard	400 x 400 x 40mm	6.25	<b>P5</b> Very low risk of slipping on surface when wet
Made To Order	400 x 400 x 55mm	6.25	

Our Made To Order products are not held in stock but are available. Minimum quantities and lead times apply for Made To Order products.

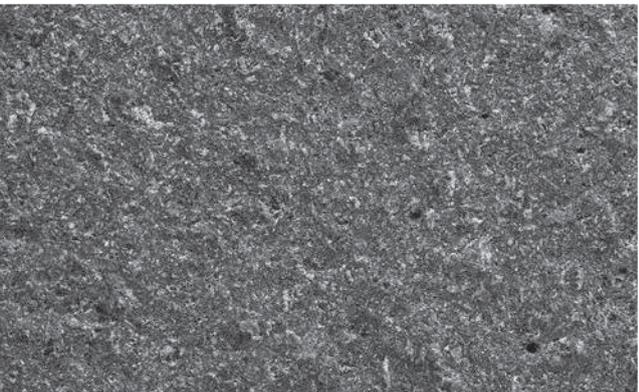
# Euro<sup>®</sup> Stone



*Euro<sup>®</sup> Stone evokes a gentle weathered surface, creating an authentic finish to add an organic mood to any environment.*



Euro® Stone | Cyprus



## SIZES



### Standard Size

400 x 400 x 40mm | 600 x 400 x 40mm\*

### MTO (Made To Order)

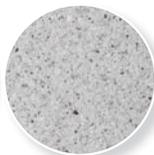
300 x 300mm | 400 x 400mm | 600 x 300mm | 600 x 400mm | 600 x 600mm

\*Standard colour Prague and Zurich

## COLOUR OPTIONS



Prague\*



Riverina



Zurich\*

Choose from a standard colour or create your own.

Minimum quantities and lead times apply for Made To Order products.

A gentle shotblast exfoliates the surface of this premium paver exposing the natural granite and marble stones within to induce a light sparkle in sun lit areas. Available in an array of contrasting colour options, utilise Euro® Stone for an injection of light and texture into paved areas.

coarse >  
authentic >  
exfoliate >



**STOCKED  
PRODUCT**

400 x 400 x 40mm  
600 x 400 x 40mm

Euro® Stone		No. per m <sup>2</sup>	Unsealed slip resistance
Standard	400 x 400 x 40mm	6.25	<b>P5</b> Very low risk of slipping on surface when wet
	600 x 400 x 40mm	4.16	
Made To Order	300 x 300 x 55mm	11.1	
	400 x 400 x 30mm	6.25	
	400 x 400 x 55mm	6.25	
	600 x 300 x 55mm	5.55	
	600 x 400 x 30mm	4.17	
	600 x 400 x 60mm	4.17	
	600 x 600 x 50mm	2.78	

Our Made To Order products are not held in stock but are available. Minimum quantities and lead times apply for Made To Order products.

# Euro<sup>®</sup> Honed



Euro<sup>®</sup> Honed | Made to Order Colours

*The near polished, honed finish of these pavers provide a sleek textural option that meets slip requirements.*



Euro® Honed | Made to Order Colours



weathered >  
organic >  
smooth >

**MADE TO ORDER  
PRODUCT**

## SIZES



### MTO (Made To Order)

300 x 300mm | 400 x 400mm | 600 x 300mm | 600 x 400mm | 600 x 600mm

Please allow a nominal 3mm off the paver height as this texture is calibrated to ensure consistency.

## COLOUR OPTIONS



Prague

Riverina

Zurich

Choose from a standard colour or create your own.

Minimum quantities and lead times apply for Made To Order products.

Adbri Masonry's Euro® Honed pavers effortlessly combine quality and aesthetics to deliver a premium architectural pavement solution. The Honed finish is achieved by honing the paver surface before a very light shot blast is applied which textures the surface enough to ensure all slip resistance criteria are met. This creates a premium smooth paver that is suitable for all external environments including streetscapes, council projects and paved commercial precincts.

Euro® Honed		No. per m <sup>2</sup>	Unsealed slip resistance
Made To Order	300 x 300 x 52mm	11.1	<b>P5</b> Very low risk of slipping on surface when wet
	400 x 400 x 27mm	6.25	
	400 x 400 x 37mm	6.25	
	400 x 400 x 47mm	6.25	
	600 x 300 x 52mm	5.55	
	600 x 400 x 27mm	4.17	
	600 x 400 x 37mm	4.17	
	600 x 400 x 57mm	4.17	
	600 x 600 x 46mm	2.78	

Our Made To Order products are not held in stock but are available. Minimum quantities and lead times apply for Made To Order products.

# Euro<sup>®</sup> Shotblast



*The pitted, abrasive texture of the Euro<sup>®</sup> Shotblast paver provides additional peace of mind for paved public areas where slip resistance is a concern.*

Euro<sup>®</sup> Shotblast | Made to Order Colours



## SIZES



### MTO (Made To Order)

300 x 300mm | 400 x 400mm | 600 x 300mm | 600 x 400mm | 600 x 600mm

Please allow a nominal 3mm off the paver height as this texture is calibrated to ensure consistency.

## COLOUR OPTIONS



Prague



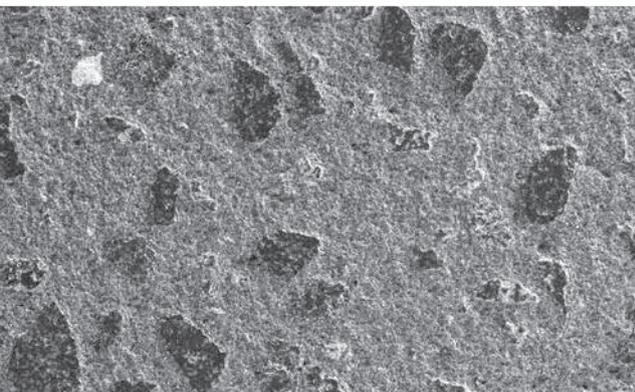
Riverina



Zurich

Choose from a standard colour or create your own.

Minimum quantities and lead times apply for Made To Order products.



The popular Euro® Shotblast texture is achieved when the pavers are subject to a moderate shot blast process through a speciality machine. The mildly abrasive surface exceeds slip requirements making Euro® Shotblast pavers an excellent selection for external pavements and commercial spaces.

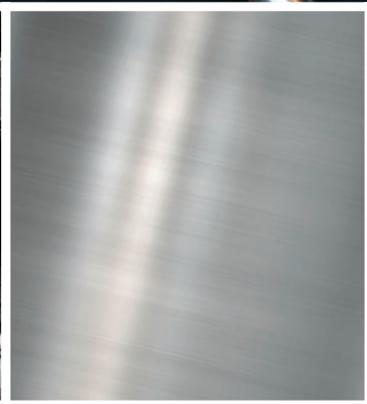
grit >  
textural >  
pitted >

**MADE TO ORDER  
PRODUCT**

Euro® Shotblast		No. per m <sup>2</sup>	Unsealed slip resistance
Made To Order	300 x 300 x 52mm	11.1	<b>P5</b> Very low risk of slipping on surface when wet
	400 x 400 x 27mm	6.25	
	400 x 400 x 37mm	6.25	
	400 x 400 x 47mm	6.25	
	600 x 300 x 52mm	5.55	
	600 x 400 x 27mm	4.17	
	600 x 400 x 37mm	4.17	
	600 x 400 x 57mm	4.17	
	600 x 600 x 46mm	2.78	

Our Made To Order products are not held in stock but are available. Minimum quantities and lead times apply for Made To Order products.

# Euro<sup>®</sup> Polished

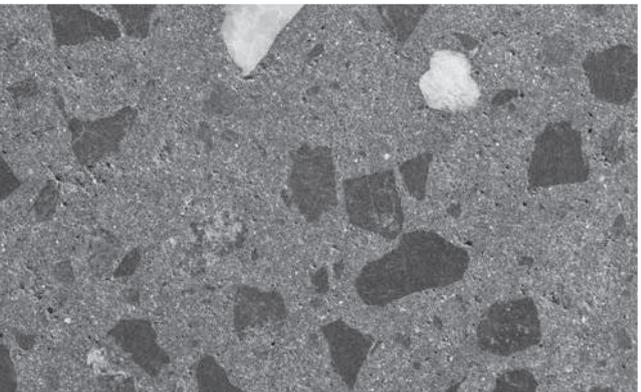


Euro<sup>®</sup> Polished | Made to Order Colour

*Surfaces are silky and hard wearing courtesy of a fine polishing process which expose a brilliant array of inner aggregates giving your project an elegantly finessed texture.*



Euro® Polished | Made to Order Colour



## SIZES



### MTO (Made To Order)

300 x 300mm | 400 x 400mm | 600 x 300mm | 600 x 400mm | 600 x 600mm

Please allow a nominal 3mm off the paver height as this texture is calibrated to ensure consistency.

## COLOUR OPTIONS



Prague



Riverina



Zurich

Choose from a standard colour or create your own.

Minimum quantities and lead times apply for Made To Order products.

Elegant and hard wearing, Euro® Polished tiles are the perfect choice for internal commercial flooring applications such as shopping centres and foyers. Euro® Polished tiles are honed and then polished to expose the rich colours of the natural aggregates while taking all surface texture off the tiles so that it is completely smooth.

The Polished tiles are only suitable for indoor applications.

elegant >  
finessed >  
sleek >

**MADE TO ORDER  
PRODUCT**

Euro® Polished		No. per m <sup>2</sup>	Unsealed slip resistance
Made To Order	300 x 300 x 52mm	11.1	<b>P5</b> Very low risk of slipping on surface when wet
	400 x 400 x 27mm	6.25	
	400 x 400 x 37mm	6.25	
	400 x 400 x 47mm	6.25	
	600 x 300 x 52mm	5.55	
	600 x 400 x 27mm	4.17	
	600 x 400 x 37mm	4.17	
	600 x 400 x 57mm	4.17	
	600 x 600 x 46mm	2.78	

Our Made To Order products are not held in stock but are available. Minimum quantities and lead times apply for Made To Order products.



# INSTALLATION AND SPECIFICATION GUIDE

## 1 - Definitions of pavement types

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### 1.1 FLAGS

Large format concrete pavers with a gross plan area greater than 0.08m<sup>2</sup>, laid on a bedding course to form a surfacing layer.

### 1.2 PEDESTRIAN PAVEMENTS

Pavements subject only to foot traffic. These include footpaths not subject to vehicle over-run or parking, pedestrian precincts which are completely closed to vehicle access, residential paths and patios and hard landscaping.

**Low Volume** - residential paths, paths in public gardens, pavements at schools or campuses, hard landscape areas, common outdoor areas of residential buildings. Suburban shopping area pavements, pedestrian areas around institutional buildings, sporting or recreational areas. Pavements with less than 3000 passes per day.

**Medium Volume** - Pavements with greater than 3000 and less than 30,000 passes per day.

**High Volume** - Pavements with high-volume pedestrian traffic exceeding 30,000 passes per day - typically inner-city and major suburban pedestrian malls and paths.

### 1.3 PEDESTRIAN AND LIGHT VEHICLE PAVEMENTS

Pavements carrying pedestrians and light vehicles only. This includes residential driveways.

### 1.4 PEDESTRIAN AND COMMERCIAL VEHICLE PAVEMENTS

Areas carrying both pedestrians and mixed vehicular traffic. Normally mall traffic will comprise a mix of light vehicles such as delivery vans with a gross weight less than 3 tonnes and commercial vehicles such as trucks, emergency and service vehicles having gross weights of 3 tonnes or more. This category of pavement includes commercial vehicle crossovers, driveways carrying occasional truck traffic, footpaths subject to truck overrun or parking, pedestrian malls accepting service vehicles and commercial vehicles, pedestrian crossing and lightly trafficked streets.

### 1.5 LIGHT VEHICLES

Light vehicles (LV) are vehicles which when fully-loaded have a gross weight of less than 3 tonnes. This category includes cars, utilities, delivery vans and some light 2-axle trucks.

### 1.6 COMMERCIAL VEHICLES

Commercial vehicles (CV) are vehicles having a gross weight of 3 tonnes or more and which comply with state or commonwealth and dimensions of normal on-road vehicles. Off-road, industrial, oversize, abnormally loaded or overloaded vehicles are specifically excluded from this guide. This vehicle category principally comprises 2 and 3 axle trucks. Trucks having 5 axles or more should not comprise more than 5% of the commercial vehicles. If data on the gross weights of the vehicles to be carried on the pavement are not available then all vehicles fitted with dual tyres and all trucks shall be classed as commercial vehicles.



## 2 - Euro® Paver System Selection

Pavement Type	Base Layer Type	Bedding Type	Euro® Pave Finish	Euro® Pave Nominal Size (mm)		
Pedestrian	Flexible - Compacted Roadbase	Sand	Classic / Slate	300 x 300 x 55 400 x 400 x 40 400 x 400 x 55	600 x 300 x 55 600 x 600 x 50	
			Honed / Shotblast / Stone	300 x 300 x 52 400 x 400 x 37 400 x 400 x 52	600 x 300 x 52 600 x 600 x 46	
	Rigid - Reinforced Concrete Slab	Sand	Classic / Slate	300 x 300 x 55 400 x 400 x 40 400 x 400 x 55	600 x 400 x 40 600 x 300 x 55 600 x 600 x 50	
			Honed / Shotblast / Stone	300 x 300 x 52 400 x 400 x 37 400 x 400 x 52	600 x 400 x 37 600 x 300 x 52 600 x 600 x 46	
		Mortar	Classic / Slate	300 x 300 x 55 400 x 400 x 40 400 x 400 x 55	600 x 400 x 40 600 x 300 x 55 600 x 600 x 50	
			Honed / Shotblast / Polished* / Stone	300 x 300 x 52 400 x 400 x 37 400 x 400 x 52	600 x 400 x 37 600 x 300 x 52 600 x 600 x 46	
		Adhesive	Classic / Slate	300 x 300 x 55 400 x 400 x 40 400 x 400 x 55	600 x 400 x 40 600 x 300 x 55 600 x 600 x 50	
			Honed / Shotblast / Polished* / Stone	300 x 300 x 52 400 x 400 x 37 400 x 400 x 52	600 x 400 x 37 600 x 300 x 52 600 x 600 x 46	
	Pods	Classic / Slate	300 x 300 x 55 400 x 400 x 40	600 x 400 x 40 400 x 400 x 55 600 x 600 x 50		
		Honed / Shotblast / Polished* / Stone	300 x 300 x 52 400 x 400 x 37	600 x 400 x 37 400 x 400 x 52 600 x 600 x 46		
	Pedestrian and Light Vehicle Areas	Flexible - Compacted Roadbase	Sand	Classic / Slate	300 x 300 x 55	400 x 400 x 55
				Honed / Shotblast / Stone	300 x 300 x 52	400 x 400 x 52
Rigid - Reinforced Concrete Slab		Mortar	Classic / Slate / Stone	300 x 300 x 55	400 x 400 x 40 400 x 400 x 55	
			Honed / Shotblast / Polished* / Stone	300 x 300 x 52	400 x 400 x 37 400 x 400 x 52	
		Adhesive	Classic / Slate	300 x 300 x 55 400 x 400 x 40 400 x 400 x 55	600 x 400 x 40 600 x 300 x 55 600 x 600 x 50	
			Honed / Shotblast / Polished* / Stone	300 x 300 x 52 400 x 400 x 37 400 x 400 x 52	600 x 400 x 37 600 x 300 x 52 600 x 600 x 46	
Pedestrian and Commercial Vehicles	Rigid - Reinforced Concrete Slab	Adhesive	Classic / Slate / Stone	300 x 300 x 55	400 x 400 x 55	
			Honed / Shotblast / Polished* / Stone	300 x 300 x 52	400 x 400 x 52	

\*Note: The polished finish is for internal use only.



## 3 - Euro® Paving System Construction Options

### 3.1 RIGID PAVEMENT SYSTEM

A minimum 20 MPa reinforced concrete base is required for all rigid pavement construction as per engineers detail and be level to within a tolerance of 3mm in 3m. This concrete base is to be designed to accommodate all of the loads independent of the paving units. Do not attempt to use these beddings over granular base.

#### 3.1.1 Euro® pavers bedded on mortar

- Thoroughly clean and prepare the concrete base surface by removing any foreign material.
- Dampen concrete base and prepare and apply a slurry bonding mix. The slurry coat must remain moist to assist mortar bond. Broom the slurry onto the concrete surface ensuring only sufficient slurry is placed so that it does not dry out prior to it being covered by the mortar bedding.
- Expansion and control joint locations need to be identified prior to laying. Control joints need to be provided at intervals of no more than 4m and must mirror all concrete base control joints.
- Mortar comprising freshly mixed 1:3 cement-sand or 1:3 lime-sand in proportions by weight (note: proprietary plasticisers and retarders are available to modify the mortar performance) should be placed and screeded at nominal 15 to 30 mm thick. If thickness greater than 30mm is needed then a levelling screed comprising of cement and aggregate in the proportions of 1:4 should be used. The aggregate blend should be 80/20 blend of 5mm stone and sand. The levelling screed should be cured for 24 hours before Euro® pavers are laid. Alternatively Mapei Planicrete SP admixture can be used refer Mapei Data Sheet No. 700.
- Considerations for weather conditions need to be taken into account when screeding mortar bed, to ensure that mix does not dry out. As soon as possible after screeding mortar, sprinkle dry cement evenly over area where laying is active. Depending on moisture content of mortar bed, dampening of dry cement may be required using a water mist spray.
- Tamper down paver to ensure embedment and full adhesion between Euro pavers, mortar bed and concrete base.
- Where pavers are to have grouted joints, joints should be at least 5mm and preferably 10mm in width and filled using a non shrink cementitious grout. Joints of less than 5mm in width may be filled with jointing sand.
- The mortar bed must have stiffened sufficiently prior to filling with a non shrink cementitious grout. Ensure grout completely fills joints. Immediately after grouting pavement wipe pavers clean with clean water and a sponge.
- After pavement completed restrict all access for 24 hours.

#### 3.1.2 Euro® pavers bedded on Mapei adhesive

Contact Mapei for your nearest distributor and technical support toll free 1800 652 666.

- Thoroughly clean and prepare the concrete base surface by removing any residual laitance, curing compounds, oils, greases and dirt by either diamond

- grinding, shot blasting, scabbling, scrubbing and/or washing with high pressure water. This work should be carried out in accordance with AS3958-1 1991 'Ceramic Tiles Part 1: Guide to the Installation of Ceramic Tiles' and AS3958-2 1992 'Ceramic Tiles Part 2: Guide to the Selection of a Ceramic Tiling System.
- Remove Euro® pavers from their pallet and place them upside down and adjacent to the proposed work area. The back face of the Euro® pavers should then be wiped clean to remove any dust using a flat sponge and clean water and allowed to dry.
- Mix the Mapei 'Drop and Go' proprietary adhesive in accordance with the Mapei Data Sheet No. 107.
- Apply the adhesive to the concrete surface with a curved notched trowel (8 to 15 mm notches) using a scraping motion to work the material into good contact with the surface to be covered. The selection of the correct trowel depends on the evenness of the substrate. Refer to Mapei data sheet No.107 for further information on trowel sizes. Do not spread more material than can be covered with tiles within 5 minutes.
- Lay and lightly twist the Euro® pavers onto the adhesive ensuring 100% full bedding, ensuring a true surface without lipping and providing the correct joint spacing between the Euro® pavers. Should the adhesive form a skin, remove and re-spread the adhesive. Periodically inspect a paver by lifting to ensure correct coverage.
- Ensure any residue adhesive on the surface of the Euro® paver and between joints is removed with a wet sponge without delay, otherwise it will harden and can only be removed by mechanical means.
- After completion of the pavement, restrict all access for pedestrian traffic for 4 hours and light vehicle traffic for 24 hours on dry substrate depending on the time of year and weather conditions (eg in winter the completed pavement may have to be left for 5 to 7 days-refer to Mapei data sheet No.107 for further information).
- Mix the proprietary grout in accordance with the manufacturers instructions to a fluid consistency.
- Pre wet the area to be grouted with clean water and apply grout with a squeegee to the grout line and allow to firm up. Without delay, wipe excess grout off the surface of the Euro® pavers with clean water and a sponge by moving in diagonal strokes over the joints. Avoid excess clean up water getting into the joints, as it will weaken the joint. Joints should be full and free of any voids and pits.
- Provide expansion joints at all locations where the Euro® pavers abut restraining surfaces and provide expansion and control joints in the paved surface directly over any expansion and control joints that occur in the slab.
- Interior installations shall have control joints at a maximum of 6m x 6m and exterior applications at 4m x 4m or at centres specified by the engineer. Control joints shall be raked or cut through the adhesive bed to the concrete base surface. All control joints shall be filled with an appropriate flexible material.



### **3.1.3 Euro® pavers bedded on sand**

- Base is to be constructed with sufficient cross fall to prevent ponding.
- Finish profile of base must reflect finished paver surface.
- Ensure edge restraints are in place to contain the bedding sand eg mortar edging, mortared down edge pavers, adjacent structures, kerbs, channels. Note: edge restraints must also be capable of accepting traffic loads.
- Thoroughly clean and prepare the concrete base surface by removing any foreign material.
- Deliver, stockpile and cover using tarpaulins or plastic sheets sufficient bedding sand for the complete project. Sand should only be drawn from the stockpile when needed for use that day.
- Place and spread sufficient sand for the planned amount of paving that day and screed to a nominal uncompacted thickness of 30mm (compacted thickness of 25mm). Note, it is bad practice to place and spread excessive amounts of sand prior to laying because of possible exposure to rain or hot windy conditions. These conditions can result in moisture variations within the sand causing uneven compaction and poor surface finish. If wet sand results from rain, it should be removed and replaced with fresh dry sand.
- Rigid screed rails of aluminium, steel or timber are common for straight surfaces. Flexible plastic or metal tubing can be used when curved surfaces are required. Note: when the screed rails are removed, the resulting groove must be filled and screeded ahead of the laying face.
- Place set out string lines as required along the perimeter of the project. If possible the project should be set out to minimise the amount of edge cutting of the Euro® pavers.
- Bring Euro® pavers up to the laying face and lay them within the string lines whilst standing on pavers that have already been laid. Lay pavers so a nominal 2 to 5mm joint is achieved using either a 'stack bond' or 'stretcher bond' pattern. As laying progresses, uneven joints and non-aligned paving units should be corrected. Cuts can be placed as the work progresses or separately on completion of the layed area either way the cuts but should be placed before the paved surface is compacted.
- Commence initial compaction of the paving using a high-frequency, low amplitude plate compactor with a plate area of not less than 0.25m<sup>2</sup>. To protect the paver surface and provide cushioning cover the metal base with 12mm plywood or thick rubber-backed carpet square. During compaction the pavers are vibrated into the bedding sand with some sand forced up into the joints providing initial lock-up between adjacent units. Initial compaction usually requires three passes of the plate compactor to be fully effective using a systematic approach to ensure all areas are compacted.
- Following initial compaction and prior to any traffic, spread joint filling sand over the pavement and broom back and forward until all joints are filled. Note: for ease of filling the joints, the joint filling sand and pavement surface should be dry. Topping up of the joint filling sand may be necessary at some future time due to self compaction or loss, so the pavement should be monitored for this condition.

- Sweep the pavement clean removing any debris or accumulation of jointing sand.
- Commence final compaction of the paving with two passes using a systematic approach to ensure all areas of the pavement are compacted. The process of brushing sand into the joints and compacting should be repeated as often as necessary to fill the joints completely.
- Clean up of the site can be carried out once the joints have been totally filled and final compaction completed. Any chipped or cracked pavers should be replaced and pavers stained during installation cleaned. Only following completion of this work should any specified sealants or protective coatings be applied to the pavers.

### **3.1.4 Euro® pavers supported on proprietary pods**

- Pods are to be supported by rigid concrete base.
- Concrete base is to be constructed with sufficient cross fall to prevent ponding
- Finished profile of concrete base must reflect finished paver surface
- Pods are to be adjusted to ensure that required surface levels are within acceptable tolerance.

## **3.2 FLEXIBLE PAVEMENT SYSTEM**

A compacted granular material base installed to design depth with a layer of bedding sand installed on top. Design depth shall be based on traffic loads and CBR of foundation material.

### **3.2.1 Euro® pavers bedded on sand.**

- Trim, compact (if necessary) and prepare the subgrade to the desired set out and levels. If the subgrade is not excavated to the correct depth, the required base course will be thinner than required and may result in failure of the pavement. If over excavation of the subgrade exists, a suitable filling material that achieves the specified CBR must be placed and compacted to bring the subgrade up to the desired level.
- Spread the base layer materials (typically crushed rock with a maximum aggregate size of 20mm) evenly over the subgrade to a depth that will result in a final compacted thickness complying with the project specification or engineers' design. Compaction of roadbase is normally performed using a heavy plate compactor or vibrating roller.
- If a plate compactor is used, a maximum loose thickness placement layer of 100mm is recommended. If a roller is used the loose layer thickness can be increased to 200mm. Oversized or segregated material should be discarded.
- Deliver, stockpile and cover, using tarpaulins or plastic sheets with sufficient bedding sand for the complete project. Sand should only be drawn from the stockpile when needed for use that day.
- Place and spread sufficient sand for the planned amount of paving that day and screed to a nominal uncompacted thickness of 30mm (compacted thickness of 25mm). Note, it is bad practice to place and conditions. These conditions can result in moisture variations within the sand causing uneven compaction and poor surface finish. If wet sand results from rain, it should be removed and replaced with fresh dry sand.



- Rigid screed rails of aluminium, steel or timber are common for straight surfaces. Flexible plastic or metal tubing can be used when curved surfaces are required. Note: when the screed rails are removed, the resulting groove must be filled and screeded ahead of the laying face.
- Place set out string lines as required along the perimeter of the project. If possible the project should be set out to minimise the amount of edge cutting of the Euro® pavers.
- Bring Euro® pavers up to the laying face and lay them within the string lines whilst standing on pavers that have already been laid. Lay pavers so a nominal 2 to 5mm joint is achieved using either a 'stack bond' or 'stretcher bond' pattern. As laying progresses, uneven joints and non-aligned paving units should be corrected. Cuts can be placed as the work progresses or separately on completion of the laid area, either way the cuts but should be placed before the paved surface is compacted.
- Commence initial compaction of the paving using a high-frequency, low amplitude plate compactor with a plate area of not less than 0.25m<sup>2</sup>. To protect the paver surface and provide cushioning, cover the metal base with 12mm plywood or thick rubber-backed carpet square. During compaction the pavers are vibrated into the bedding sand with some sand forced up into the joints providing initial lock-up between adjacent units. Initial compaction usually requires three passes of the plate compactor to be fully effective using a systematic approach to ensure all areas are compacted.
- Following initial compaction and prior to any vehicular traffic, spread joint filling sand over the pavement and broom back and forward until all joints are filled. Note: for ease of filling the joints, the joint filling sand and pavement surface should be dry. Topping up of the joint filling sand may be necessary at some future time due to self compaction or loss, so the pavement should be monitored for this condition.
- Sweep the pavement clean removing any debris or accumulation of jointing sand.
- Commence final compaction of the paving with two passes using a systematic approach to ensure all areas of the pavement are compacted. The process of brushing sand into the joints and compacting should be repeated as often as necessary to fill the joints completely.
- Clean up of the site can be carried out once the joints have been totally filled and final compaction completed. Any chipped or cracked pavers should be replaced and pavers stained during installation cleaned. Only following completion of this work should any specified sealants or protective coatings be applied to the pavers.

### 3.3 PODS

The use of pod support systems has grown in popularity for balcony and rooftop applications, and is an ideal way to support pedestrian only loads. Pods allow the paving units to be supported over the waterproof membranes that are typically applied in these applications.

Pod supports have the advantage of holding the paving units above the concrete slab surface, allowing free drainage around the paving units and allowing services to be installed without any direct load being applied to them. They are also environmentally friendly as the suspended paving units prevent direct sunlight from being absorbed by the slab and retaining the heat, and the air flow around the suspended paving units ensures the slab surface itself remains shaded and cooled. This in turn reduces air conditioning requirements for these buildings. Pod support systems also allow you to create a level wearing surface by supporting the paving units above a slab that may require falls to drainage outlets to be provided on its surface.

The paving pods are proprietary products. There are two distinct types of paving pods, the Fixed pod that will uniformly lift the paving units a set distance over the slab surface, and the Adjustable pods that allow variation in the way the paving unit is supported.

The Fixed pods are pod systems that have no adjustable parts. They lift the paving unit a set distance above the slab surface, this distance is determined by the thickness of the base component of the pod. These units are used to allow drainage around the units and to remove the requirements for sands, mortars or adhesives on site, but they can only be used where it will be acceptable for the paved surface to reflect all the falls on the slab surface.

Adjustable pods are a more intricate system that allows the pods to be stacked so the paving units can be supported a greater distance above the slab surface, they also break the support pad into quadrants so that each paving unit supported by the pod can be supported at a different level or angle. These pod units are especially advantageous where there is a desire to install services over a slab surface or where the pavement surface is required to be flat and level and not to reflect the falls cast into the slab, these benefits are in addition to the free draining advantage offered by all pod systems.

## 3.4 BASE COURSE

### 3.3.1 Rigid System

The base course for a rigid system requires a minimum 20 MPa reinforced concrete slab construction in accordance with the engineers detail taking into account the California Bearing Ratio (CBR) of the subgrade and expected traffic volumes.

### 3.3.2 Flexible System

The base for a flexible system is normally constructed from unbound granular crushed rock roadbase with maximum aggregate size of 20mm. The nominated base thickness must take into account the California Bearing Ratio (CBR) of the subgrade and expected traffic volumes. Typical properties of the roadbase material are shown in table 3.1 over page.



### 3.5 BEDDING SAND

Bedding sand for either a rigid or flexible system should be a coarse, well graded, angular, non plastic, containing no deleterious materials such as stones, clay lumps or excessive organic material and be similar to washed sand used as fine aggregate in concrete. Bricklayers sands, crusher dust, sands containing salt, beach sand or single-sized sands are not suitable. Typical properties of bedding sand are shown in Table 3.2.

### 3.6 JOINT FILLING SAND

Joint filling sand for either a rigid or flexible system should be fine, round, well graded and free from contaminants such as clay and soluble salts which

are likely to cause staining efflorescence of the paving units. A washed, white sand is recommended and should, ideally, be kiln-dried. Typical properties of joint filling sand are shown in Table 3.2.

### 3.7 BONDING SLURRY COAT FOR MORTAR

The slurry bonding coat is normally a mixture of 1 part GP cement and 1 part water. Alternatively Mapei Planicrete SP proprietary bonding admixture mixed with 1 part GP cement can be used (refer Mapei Data Sheet No. 700).

### 3.8 LEVELLING SCREED

The levelling screed comprises a 1 GP cement and 4 parts aggregate in a blend of 80 percent 5mm stone and 20 percent clean sand.

**TABLE 3.1 - PROPERTIES OF ROADBASE MATERIAL**

Roadbase property	Size (mm)	Percentage Passing Sleeve Size	
		Class A	Class B
26.5mm		100	100
19.0mm		95-100	95-100
13.2mm		78-92	78-92
9.52mm		68-83	68-83
4.75mm		44-64	44-64
2.36mm		29-47	30-48
425 microns		12-20	14-23
75 microns		2-6	6-10
Liquid limit (max)		20	20
Plasticity Index (max)		6	6
Los Angeles Test % loss (max)		40	40
CBR after soaking at 98%		-	-
Modified maximum dry density		100% (min)	80% (min)

**TABLE 3.2 - PROPERTIES OF BEDDING AND JOINT SAND**

Sieve Size	Percent Passing	
	Bedding Sand	Joint Filling Sand
9.52mm	100	N/A
4.75mm	90-100	N/A
2.36mm	75-100	100
1.18mm	55-90	75-95
600 microns	35-59	50-80
300 microns	8-30	20-45
150 microns	0-10	5-15
75 microns	0-5	0-5

### 3.9 MAPEI ADHESIVE 'DROP AND GO'

TECHNICAL DATA AT 23°C-50% R-H (Refer Mapei Data Sheet No. 107).

- Classification according to EN 12004 C2F
- Application thickness (mm) 3-20
- Tensile adhesive strength according to EN 1348 (N/mm<sup>2</sup>)
- Initial 2.0
- After heat ageing 1.9
- After water immersion 1.3
- After freeze-thaw cycles 1.2
- Pot life 60 min
- Open time according to EN 1346 15 min
- Adjustment time 30 min
- Set to light traffic 4 hours
- Waiting time for grouting 4 hours
- Ready to use 24 hours



### 3.10 MORTAR

Mortar generally comprises 1:3 GP cement-clean sand or 1:3 lime-clean sand in proportions by weight (note: proprietary plasticisers and retarders are available to modify the mortar performance).

### 3.11 PODS

Paver spacer/drainage pods shall be a proprietary to type to allow for height adjustment.

### 3.12 THE USE OF SEALANTS

The use of sealants on the Euro® pavers is not compulsory, but is readily utilised to satisfy individual requirements. Sealing of Euro® generally relates to one of three issues, avoiding permanent staining, water penetration and the aesthetic appeal of the pavement. There are numerous proprietary brands of sealants

on the market and due to their diversity it is vital that consultation with the manufacturer and applicators be considered prior to sealing pavement. Environex can supply a range of cleaners and sealers to clean and protect Euro pavers.

#### *Cleaner*

- Anti-Eff - A cleaner that will remove efflorescence.

#### *Sealers:*

- Tuscan Seal - A penetrating sealer for a natural finish that will not alter the look of the paver or reduce slip resistance.

- Concrete and Clay Paver Sealer - An acrylic coating sealer that will darken the appearance, create a sheen and reduce slip resistance.

*Contact Environex for nearest distribution and technical support on 1800 999 196.*

## 4 - Euro® Paver System Specification

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### 4.1 STANDARD PROFILE

400 x 400 x 30

300 x 300 x 55

600 x 300 x 55

### 4.2 SLIP RESISTANCE CLASSIFICATION

Wet Pendulum Test in accordance with AS/NZS 4586: 1999 Appendix A Using TRRL Rubber in the Pendulum Test.

### 4.3 ABRASION RESISTANCE

Abrasion Resistance Test in accordance with AS/NZS 4456.9:2003 Requirement in accordance with CMAA Document MA44.

### 4.4 BREAKING LOAD

Breaking Load Test in accordance with AS/NZS 4456.5:2003.

### 4.5 DATA SHEETS

Due to the wide scope of materials, finishes and profiles in the Euro® paver range, please consult Adbri Masonry for a data specification sheet directly applicable to your paver selection.

For more information call: **1300 365 565**  
**www.adbrimasonry.com.au**





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Euro® Paving Range Brochure

ABM1034 04/16

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