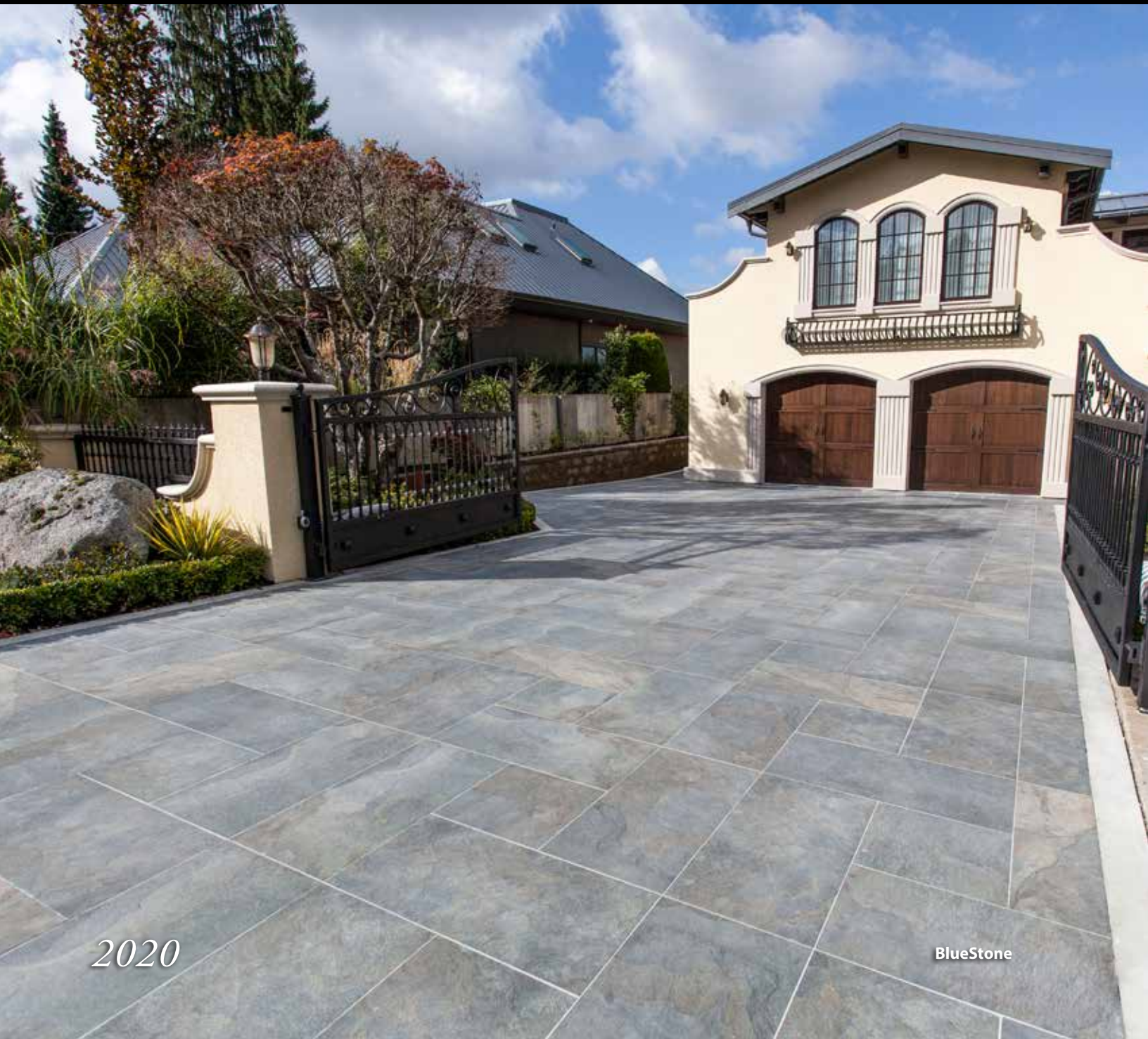


# *Aristokrat® Series* 2cm Porcelain Slabs



2020

BlueStone

*Where function meets style*



**Oldcastle APG**  
A CRH COMPANY

# *Aristokrat® Series* 2cm Porcelain Slabs



Milan, Tuscan & Siena Travertine

## ***Abbotsford Concrete Products welcome you to the Aristokrat® Series, our latest Slab.***

This 2cm Porcelain Slab is manufactured with our patent pending integral mix design, ensuring you the finest quality 2cm Porcelain Slabs on the market.

Traditionally porcelain has been used for extensive indoor applications but now with our advanced manufacturing technology, porcelain slabs can be used for a wide variety of outdoor hardscape applications.

The Aristokrat® Series is perfect for terraces, roof decks, patios, court yards, swimming pools, water features or any traditional hardscape areas. Porcelain slabs deliver performance, style, versatility and are resistant to staining, fading, marking, chemicals and extreme weather. It is the ideal choice for residential or commercial outdoor applications but can also be used indoors for aesthetic continuity.

This unique product, with next generation technology, can be used for exterior architectural cladding as an alternative to conventional masonry products, providing a low maintenance high quality elegant finish.

The exceptional technical features of Aristokrat® Slabs are not affected by the passing of time and can be installed by using one of the four following methods: Adjustable BlackJack® Pedestal System, Expanded Polypropylene Panels (EPP), Aggregate Set or Traditional Mortar Set.

Aristokrat® Series Porcelain Slabs are fully rectified for squareness and are dimensionally consistent reducing installation time and cost.

The Aristokrat® Series is extremely versatile: it is thinner and lighter (only 9 lbs/ft<sup>2</sup>) than concrete and natural stone slabs, while providing superior flexural and load-bearing capacity.

The Aristokrat® Series is very low maintenance, durable and stain resistant. All slabs come with our proven 'Anti-Slip' surface and are available in over 20 rich color blends with subtle variations and textures that emulate natural Limestone, Granite, Travertine, Marble and Quartz. There are six modular sizes allowing a wide variety of layout combinations for complete design freedom.



### Benefits:

- No efflorescence
- Use outdoors or indoors
- Stain and mark resistant high density surface
- Precise sizing greatly reducing installation time and cost
- Superior strength / thickness ratio than concrete or natural stone
- Lightweight (only 9lbs/ft<sup>2</sup>) provides cost savings in shipping and installation
- Install on BlackJack® Pedestal System, Expanded Polypropylene Panels (EPP), Aggregate or Mortar Set
- Can be used in permeable paving slab applications

Milan Travertine

### Standard Sizes:

23 1/2" x 47 1/4" x 3/4"	( 598mm x 1200mm x 20mm )
23 1/2" x 35 5/16" x 3/4"	( 598mm x 898mm x 20mm )
23 1/2" x 23 1/2" x 3/4"	( 598mm x 598mm x 20mm )
17 5/8" x 35 5/16" x 3/4"	( 448mm x 598mm x 20mm )
17 5/8" x 17 5/8" x 3/4"	( 448mm x 448mm x 20mm )

### Wood Plank Sizes:

8 3/4" x 35 5/16" x 3/4"	( 222mm x 898mm x 20mm )
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All sizes are nominal.



Bull-nosed Coping

Bull-nosed Stair Treads

Bull-nosed Coping and Stair Treads are available in all colors, except wood plank colors.  
11 3/4" x 23 1/2" x 3/4" ( 298mm x 598mm x 20mm )





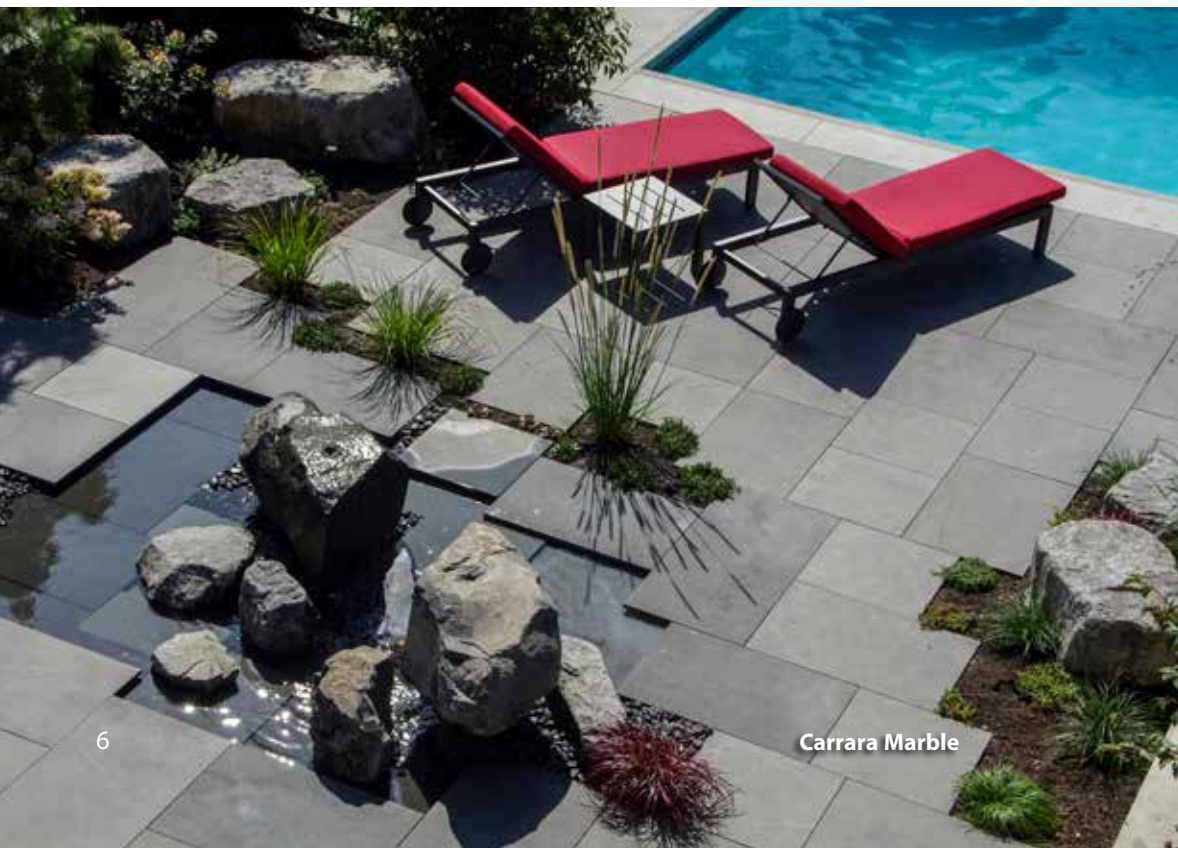
Pacific Coast Granite



Cascade Granite



Dover Grey and BlackStone





Dover Grey



Tuscan Travertine



IronWood



Pacific Coast Granite



BlueStone



BrownStone



BlackStone



Oxford Limestone



Cambridge Limestone



Hampton Limestone

*While the colors shown here are represented as accurately as possible, they should only be used as a guide. Actual full size samples should be viewed before making a final color selection. For best results, slabs should be installed from several pallets in random order to ensure overall consistency, especially with multi-color blends.*



Onyx



Salt & Pepper



Dover Grey



Arctic Mist



Coffee Cream



Carrara Marble

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Cascade Granite



Pacific Coast Granite



Glacier Granite



Siena Travertine



Milan Travertine



Tuscan Travertine

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Tamarack



Sequoia



BeachWood



IronWood



Dover Grey and Onyx  
Courtesy of Landscape 2000

*Our designers have aspired to create unique patterns and finishes to imitate the look of natural stone. Each color or piece in the Aristokrat® Series has subtle shading and pattern changes to emulate as though it were quarried from the piece next to it. Keeping in mind that nature creates but never duplicates, it is important when installing that you select slabs from numerous pallets to ensure even blending throughout your project.*

*While the colors shown here are represented as accurately as possible, they should only be used as a guide. Actual full size samples should be viewed before making a final color selection. For best results, slabs should be installed from several pallets in random order to ensure overall consistency, especially with multi-color blends.*

# *Aristokrat® Series* 2cm Porcelain Slabs



**Random Pattern 4**

*With over 20 colors and 5 sizes, the possibilities are endless!*

# *Aristokrat® Series* 2cm Porcelain Slabs

Pattern Guide to help you order and layout your project

## **Random Pattern 1**

24"x48" (60cm x 120cm)	23% of area
24"x36" (60cm x 90cm)	23% of area
24"x24" (60cm x 60cm)	11% of area
18"x36" (45cm x 90cm)	26% of area
18"x18" (45cm x 45cm)	17% of area

*Every 105 sq ft requires approx. 59 pedestals*

## **Random Pattern 2**

18"x36" (45cm x 90cm)	57% of area
18"x18" (45cm x 45cm)	43% of area <b>or</b>

*Every 121.5 sq ft requires approx 76 pedestals*

24"x48" (60cm x 120cm)	57% of area
24"x24" (60cm x 60cm)	43% of area

*Every 108 sq ft requires approx 43 pedestals*

## **Random Pattern 3**

24"x48" (60cm x 120cm)	40% of area
24"x36" (60cm x 90cm)	30% of area
24"x24" (60cm x 60cm)	30% of area

*Every 100 sq ft requires approx 43 pedestals*

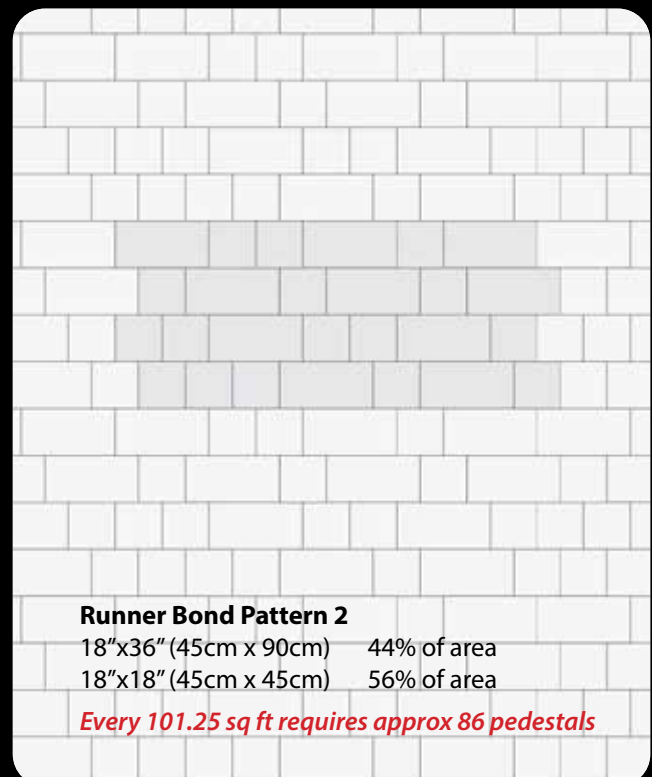
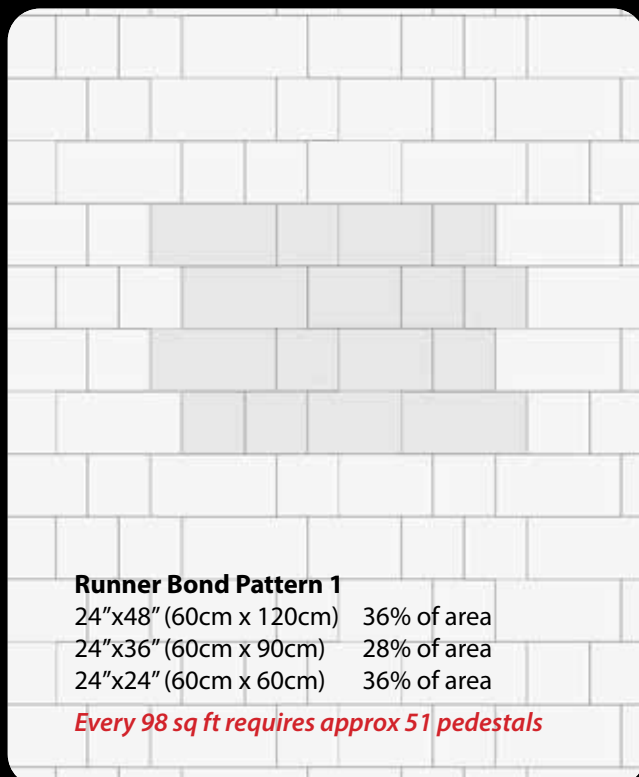
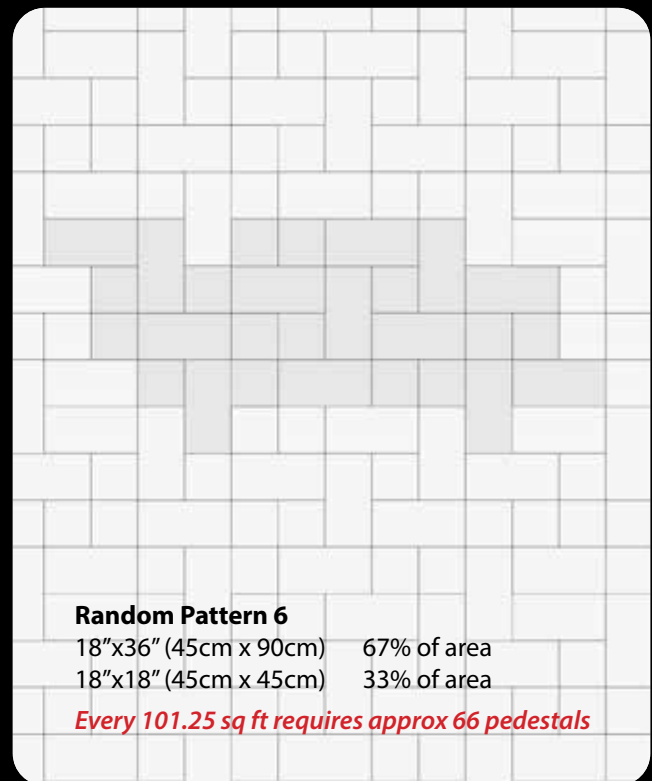
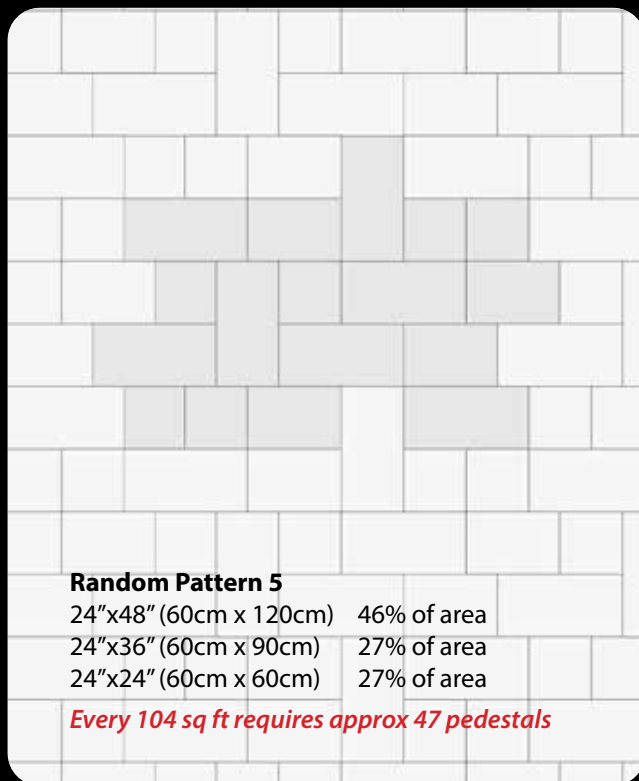
## **Random Pattern 4**

24"x48" (60cm x 120cm)	25% of area
24"x36" (60cm x 90cm)	19% of area
24"x24" (60cm x 60cm)	13% of area
18"x36" (45cm x 90cm)	24% of area
18"x18" (45cm x 45cm)	19% of area

*Every 94.5 sq ft requires approx 59 pedestals*

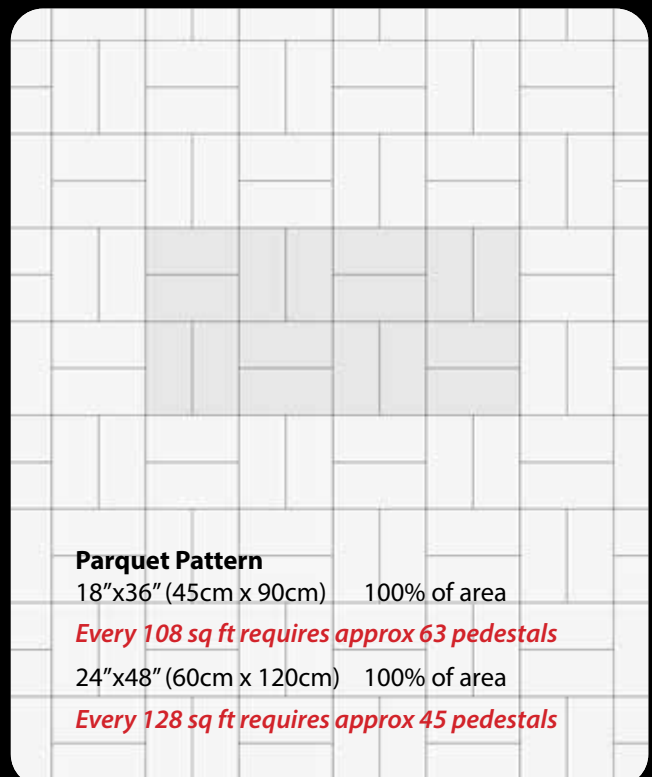
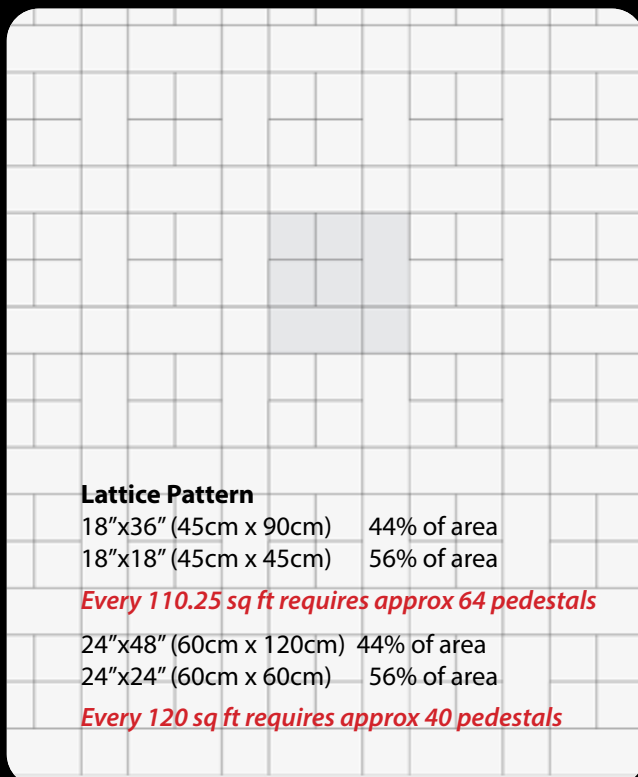
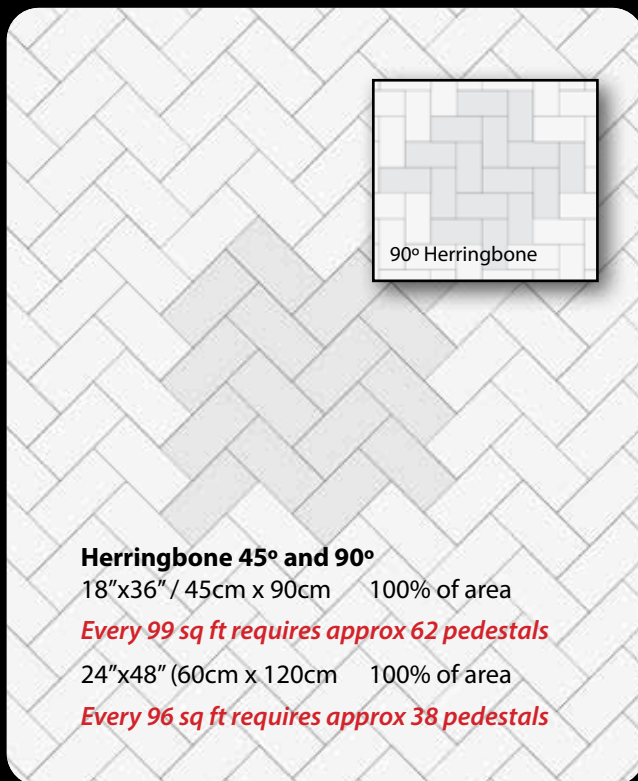
# *Aristokrat® Series* 2cm Porcelain Slabs

Pattern Guide to help you order and layout your project



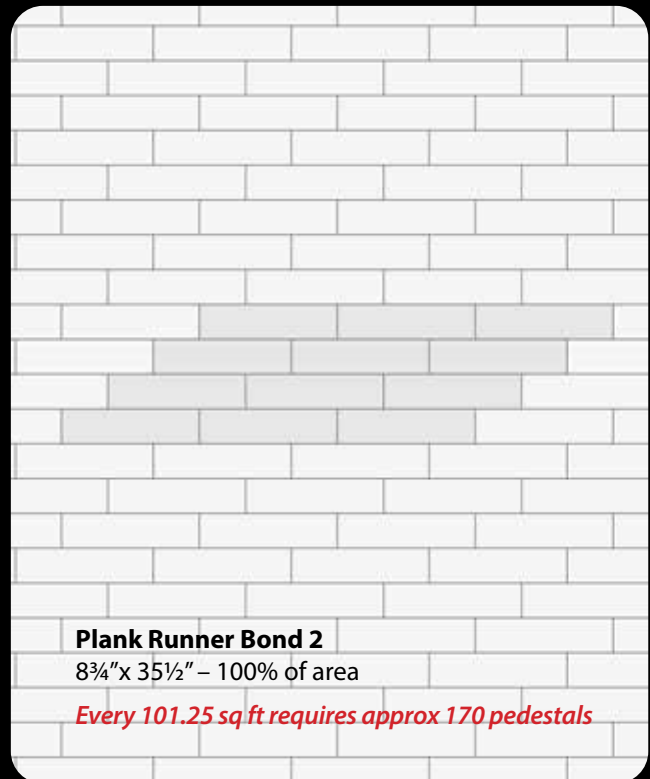
# *Aristokrat® Series* 2cm Porcelain Slabs

Pattern Guide to help you order and layout your project






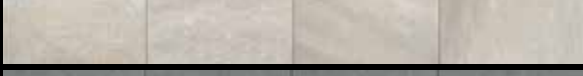



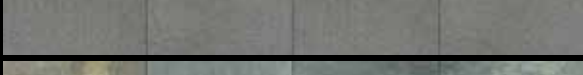
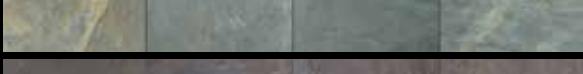
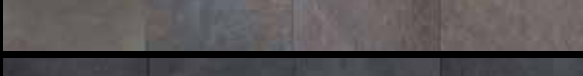
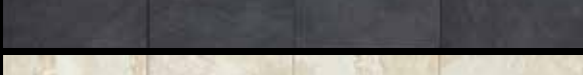











## *Aristokrat® Series* 2cm Porcelain Slabs

Pattern Guide to help you order and layout your project



# *Aristokrat® Series* 2cm Porcelain Slab SRI Values

	Aristokrat® Color	% Solar Reflectance	SRI
	Oxford Limestone	42.6	49
	Hampton Limestone	48.3	56
	Cambridge Limestone	48.6	57
	Pacific Coast Granite	31.7	35
	Glacier Granite	38.6	44
	Cascade Granite	39.6	45
	Dover Grey	32.8	36
	Arctic Mist	36.3	40
	Coffee Cream	55.7	67
	Salt & Pepper	36.0	40
	BlueStone	31.7	35
	BrownStone	26.9	28
	BlackStone	20.5	20
	Siena Travertine	55.6	66
	Tuscan Travertine	54.1	64
	Milan Travertine	49.0	57
	Carrara Marble	29.2	31
	Onyx	16.7	15
	Tamarack	53.1	62
	Sequoia	37.0	41
	BeachWood	42.2	47
	IronWood	27.8	29

# Frequently Asked Questions

## **Will the Aristokrat® Series Porcelain Slabs scratch with my lawn furniture on it?**

Most materials will scratch over time HOWEVER the Aristokrat® Series Porcelain Slabs' finish is so strong, that you can sharpen a knife or screwdriver on it, so your lawn furniture should not be a problem.

## **How long will the color last?**

UV testing has not shown any fading. We have had the product installed in all weather extremes for many years without any deterioration.

## **What about efflorescence?**

Efflorescence will not occur in the Aristokrat® Series Porcelain Slabs. They are not manufactured using cement powder, which is the key factor in the development of efflorescence.

## **Can I seal my Aristokrat® Series Porcelain Slabs?**

No, do not seal your Aristokrat® Series Porcelain Slabs as they have such low absorbency and are very stain resistant. However, if your installation method requires grouted joints, then it is recommended to seal the grout to prevent staining.

## **How do I clean them?**

Any mild or harsh cleaner may be used. Aristokrat® Series Porcelain Slabs are not affected by acids, alkalies, solvents or abrasives. You can power wash the slabs but most marks can be removed with a mild detergent and water (*far better for the environment*).

## **How much do they weigh?**

Aristokrat® Series Porcelain Slabs weigh 9 lbs. per square foot, compared to 2" concrete slabs which are 24 lbs. and natural stone can be in excess of 30 lbs. per square foot. The lower weight saves on delivery cost, installation time and reduces engineering requirements for the reinforcement of decks.

## **How can the Aristokrat® Series Porcelain Slabs be installed?**

Aristokrat® Series Porcelain Slabs can be aggregate set (*permeable or impermeable*), mortar set, installed on Expanded Polypropylene Panels (EPP) or on the adjustable BlackJack Pedestal System.

## **Do the Aristokrat® Series Porcelain Slabs require spacing between them?**

Yes, spacing is required between the slabs to avoid squeaking and chipping that may occur with natural movement. All units of the Aristokrat® Series Porcelain Slabs are pre-engineered to be used in combination with a 3mm joint, allowing the creation of a wide range of patterns.

## **How do you cut the Aristokrat® Series Porcelain Slabs?**

Any good quality continuous diamond blade will cut the slabs. The finer the blade the smoother the cut.

## **How strong are they?**

Aristokrat® Series Porcelain Slabs are very strong. Four times stronger than concrete and up to 10 times stronger than natural stone. As with all porcelain products, if heavy objects are dropped on the surface, fracturing may occur. If the area will be subject to this possibility, extra support may be required.

## **Are they fireproof for use under my BBQ or in front of my outdoor fireplace?**

Aristokrat® Series Porcelain Slabs are totally fireproof but care should be used that your supporting structure is also fireproof.

## **How many sizes and colors are available?**

In our Abbotsford plant, we stock over 20 colors in 6 different sizes available for immediate shipping.

## **Standard Sizes:**

- 23 1/2" x 47 1/4" x 3/4"
- 23 1/2" x 35 5/16" x 3/4"
- 23 1/2" x 23 1/2" x 3/4"
- 17 5/8" x 35 5/16" x 3/4"
- 17 5/8" x 17 5/8" x 3/4"

Also available in the Standard Size colors are 11 3/4" x 23 1/2" x 3/4" Stair Treads and Bull-Nosed Coping, except Wood Plank colors. (IronWood, Sequoia, BeachWood, Tamarack)

## **Wood Plank Size:**

8 3/4" x 35 5/16" x 3/4"      *All sizes are nominal.*

## **Are there variations in color between slabs?**

Our designers have aspired to create unique patterns and finishes to imitate the look of natural stone. Each color or piece in the Aristokrat® Series has subtle shading and pattern changes to emulate as though it were quarried from the piece next to it. Keeping in mind that nature creates but never duplicates, it is important when installing that you select slabs from numerous pallets to ensure even blending throughout your project.

## **How does the price compare with other forms of paving?**

Aristokrat® Series Porcelain Slabs are about twice the price of concrete slabs and similar in price to natural stone. The advantage lies in the quality and consistency of the product. No fading, durable, scratch resistant, easy to clean, light weight, ease of installation and superior strength.

## **What about water on the surface?**

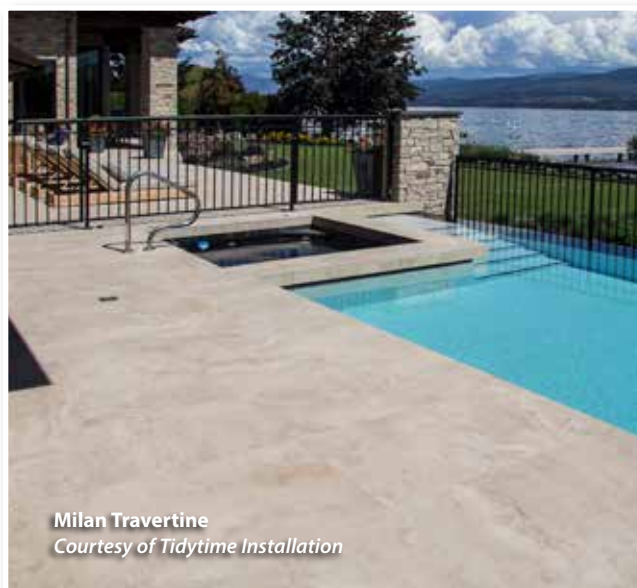
Aristokrat® Series Porcelain Slabs will absorb almost no water (less than .2 %). Water will actually bead up on the surface, just as it would on a sheet of glass and will with time evaporate. A broom or squeegee will accelerate this process. This is also the reason why most stains are easily cleaned.

## **Are they slip resistant?**

The Aristokrat® Series Porcelain Slabs are manufactured with an anti-slip finish. Independent lab testing results confirm a low probability of slipping.

## **What about frost and de-icing the Aristokrat® Series Porcelain Slabs?**

Like any surface, if there is an accumulation of moisture that is subject to freezing, ice could form resulting in a slippery surface. This can be easily rectified with the use of standard de-icing products.



Milan Travertine  
Courtesy of Tidytyme Installation

# Guide Specifications for the Installation of Aristokrat® Series Porcelain Slabs

This installation guide is designed for use by professional hardscape contractors experienced in construction techniques, design considerations and have the required experience and skill set for the installation of hardscape products like: Concrete Paving Stones and Concrete Slabs. Although the Aristokrat® Series Porcelain Slabs are now a hardscaping product, they have an extremely high flexural (transverse) strength and care should be used when handling them to avoid chipping and breaking.

## Characteristics

Thank you for choosing Aristokrat® Series Porcelain Slabs. Your new product has some unique properties that make the Aristokrat® Series Porcelain Slabs a great choice for your project:

- Precise sizing greatly reduces installation time and cost, as well as providing an overall consistent aesthetic finish.
- A 2 cm ( $\frac{3}{4}$ ") thick Aristokrat® Series Porcelain Slab is equal in strength to a 4 cm ( $1\frac{1}{2}$ ") minimum thickness of natural stone. This greatly reduces shipping and installation costs.
- The weight of the Aristokrat® Series Porcelain Slabs is only approx. 9 lbs. per sq. ft. compared to 25 lbs. per sq. ft. for 2" concrete, saving on delivery costs, installation time and reducing reinforcement requirements for elevated deck installations.
- The Aristokrat® Series Porcelain Slabs contain no cement so there is no potential for efflorescence.
- The extremely dense surface allows the Aristokrat® Series Porcelain Slabs to have a high resistance to staining, water will actually bead up on the surface of the slab (known as surface tension). In fact the surface tension will not allow sealers to penetrate the slab.
- The Aristokrat® Series Porcelain Slabs have a very high freeze thaw resistance due to their density and very low water absorption < 0.2%.
- The compressive strength is greater than 30,000 psi and has a Flexural Strength for the 18" x 18" greater than 3900 psi and greater than 3,100 psi for the 24" x 24". As a comparison, the Aristokrat® Series Porcelain Slab at 24"x24"x2cm ( $\frac{3}{4}$ ") has a minimum of four times the flexural strength of a 24"x24"x2" concrete slab.
- The slip resistance measured as a Dynamic Coefficient of Friction wet or dry is exceptional, leading to a very low probability of slipping.
- Numerous dimensions are available allowing for diverse laying patterns.
- Aristokrat® Series Porcelain Slabs can be used on both the exterior as well as interior of your project ensuring a seamless design.
- LEED credits are available for the Solar Reflectance Index as most Aristokrat® Series Porcelain Slab colors have an SRI of 29 or greater. (see page 17)

**The Aristokrat® Series Porcelain Slabs are rectified at the factory to exacting standards per CSA 231.1-14, ASTM C1782 / C1782M -16 slab tolerances are -1.0 mm to +2.0 mm.**

*When choosing an installer for your project, it is advised that you choose a professional hardscape installer such as an ICPI (Interlocking Concrete Pavement Institute) Accredited Installer.*

# Installation Methods

## BlackJack® Pedestal System

Pedestal Set is the most common method of laying raised patios and roof decks. This involves using BlackJack® Pedestals to raise the Aristokrat® Series Porcelain Slabs above a hard substrate such as a waterproof membrane to allow water to pass between the Aristokrat® Series Porcelain Slabs and flow to a drain. The use of this method allows for quick and easy removal of Aristokrat® Series Porcelain Slabs in order to access drains, wiring, plumbing or other utilities that are hidden below the Aristokrat® Series Porcelain Slabs. This method allows for a perfectly flat finished surface as all the water drains below.

## Mortar Set

Mortar Set is a traditional Slab Set method using an exterior polymer modified thin-set mortar and or with use of an anti-fracture membrane on top of a reinforced concrete base. This installation method costs a little more, however has the advantage of fully supporting the Aristokrat® Series Porcelain Slabs which allows for light vehicle traffic, making it suitable for driveways and garage floors. Surface drainage must be incorporated as the joints between the Aristokrat® Series Porcelain Slabs are grouted.

## Expanded Polypropylene Panels (EPP)

The Expanded Polypropylene Panels (EPP) is a complete slab laying system incorporating base reinforcement, spacers, drainage and edge retention. This system is used at ground level and reduces the amount of excavation usually associated with ground level installations. Most typical with residential applications.

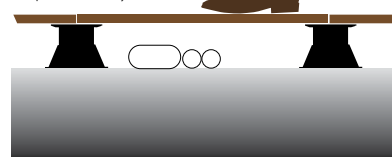
## Aggregate Set

Aggregate Set is used where the finish is at grade. This method incorporates a permeable joint or an impermeable grout or High Performance Tile Sand filled joint. The recommended spacers are the BlackJack® BJ-4mm pedestals. The best material to be used for a bedding layer is 1"-2" of No. 8 (1/4" - 3/8") clear crush fractured aggregate. The base material will consist of 4"-6" No. 57 (3/4") clear crush fractured aggregate. This allows all water to infiltrate to the subbase preventing frost heaves or water problems.

Under no circumstances should sand be used as a direct bedding layer as the sand can retain water and will expand during freeze thaw cycles leading to installation failure.

### Set on BlackJack® Pedestal System

over sloped surfaces and utility pipes and conduits  
- pedestrian only



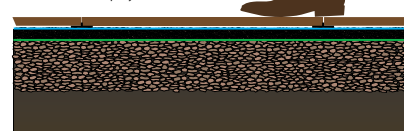
### Mortar Set

concrete base with thin-set mortar or construction adhesive - pedestrian and vehicular traffic



### Expanded Polypropylene Panels (EPP)

on aggregate base  
- pedestrian only  
- for residential projects



### Aggregate Set

on aggregate base  
- pedestrian only



*Regardless of the installation method chosen, please be aware that each color or piece in the Aristokrat® Porcelain Slab Series has subtle shading and pattern changes to emulate quarried stone. It is important when installing that you select Aristokrat® Series Porcelain Slabs from numerous pallets to ensure even blending throughout your project.*

**Under no circumstances should the Aristokrat® Series Porcelain Slabs ever be laid tightly together without a spacer as chipping will occur in time.**

## Tools

- All cutting of Aristokrat® Series Porcelain Slabs **MUST** be done with a wet saw of a suitable size to accommodate the Aristokrat® Series Porcelain Slab. Table and rail saws are available up to 60" in length. A high RPM saw is recommended and the blade used **MUST** be a continuous rim designed for porcelain slab cutting to avoid unnecessary damage to the cutting edge.
- A vacuum suction cup lifter, often used for the handling of glass, is very handy to place Aristokrat® Series Porcelain Slabs under flashing or to remove Aristokrat® Series Porcelain Slabs to make adjustments, or to be able to access maintenance concerns. Do **NOT** use mechanical clamps or screwdrivers to lift or shift the Aristokrat® Series Porcelain Slabs as it could damage the slab.
- Safety glasses and gloves should always be worn when handling Aristokrat® Series Porcelain Slabs to protect your eyes and your hands.

## Cutting

For best results consider grinding equipment for edge detail after cutting occurs to soften the sharp 90 degree cut edge.

## Vacuum Placement

2 man battery operated vacuum equipment may be used to increase production, placement and handling.



## Spacers

All Aristokrat® Series Porcelain Slabs have been pre-engineered to be installed with a 3 mm gap using the BlackJack® Pedestal System. The configuration of all patterns is based on the 3 mm gap size of the BlackJack® Pedestal System. For mortar set applications, standard 3 mm commercial tile spacers may be used.

## Compaction

Regardless of the installation method used, all base materials **MUST** be pre-compacted or rigid as in the case of concrete or roof top membranes. Any movement in the base will be reflected in the finished surface.

## Retention

All Aristokrat® Series Porcelain Slabs must be laid tight to the spacer tabs and retained on the perimeter to keep the installation firm and prevent lateral shifting.

## Handling

- Pallets of Aristokrat® Series Porcelain Slabs are packaged with all-weather plastic covers to protect corners and edges from chipping in transit.
- Care **MUST** be taken not to contact the Aristokrat® Series Porcelain Slabs with other Aristokrat® Series Porcelain Slabs or other hard surfaces as chipping can occur.
- Protective covering should be left on the Aristokrat® Series Porcelain Slabs until they are ready for installation.
- All protective covering is made of wood or plastic which can be recycled, no cardboard is used.
- If any of the Aristokrat® Series Porcelain Slabs break, the edges will be very sharp and must be handled with care.
- Since the Aristokrat® Series Porcelain Slabs are vertically placed on pallets, support the outside edge to prevent slabs from falling off the pallet after the plastic is removed.
- A plate compactor should **NEVER** be used over the Aristokrat® Series Porcelain Slabs.

## Sealers

Do **NOT** attempt to seal the surface of the Aristokrat® Series Porcelain Slabs. The low absorption rate prevents the sealer from absorbing into the surface of the Porcelain Slab causing the sealer to flake off. Cement grout joints should be sealed using manufacturer's recommendations to prevent staining and assist in on-going maintenance.



*Use a vacuum suction cup lifter for easier and quicker installation*

# Pedestal Set with BlackJack® Pedestal System

Aristokrat® Series Porcelain Slabs should be installed using the BlackJack® Pedestal System.

The BlackJack® Pedestal System is available in heights ranging from 4 mm ( $\frac{3}{16}$ ") to 1016 mm (40"), although we recommend a maximum height of 150 mm (6") be used with the Aristokrat® Series Porcelain Slabs to provide maximum stability and safety.

The OneStep Pedestal is the easiest pedestal to install and it adjusts in 1 mm increments, can be split into halves and quarters and is made from 100% recycled plastic. It has a height range of between 24 mm and 45 mm ( $\frac{15}{16}$ " and  $1\frac{3}{4}$ ") that may be increased using BJ 20E and/or BJ 40E extenders.

The BlackJack® Pedestals can be used with any pattern, as the spacer tabs are simple to remove.

The BlackJack® Pedestals must be installed over a firm base such as concrete, reinforced wood deck or minimum 60 PSI rigid insulation with protection board to spread the load.

The Aristokrat® Series Porcelain Slabs **MUST** be installed tight to the pedestals and edge restraints, allowing for no movement. When installing square or large rectangle slabs, the maximum distance between pedestals shall be 600 mm (24") in any direction. Aristokrat® Series Porcelain Plank Slabs should not exceed more than a 457 mm (18") spacing.

If heavier static or dynamic loads are expected, then additional pedestals can be used (typically in the middle).

Spacers or pedestals must be used on all sides to prevent chipping and allow for proper drainage.

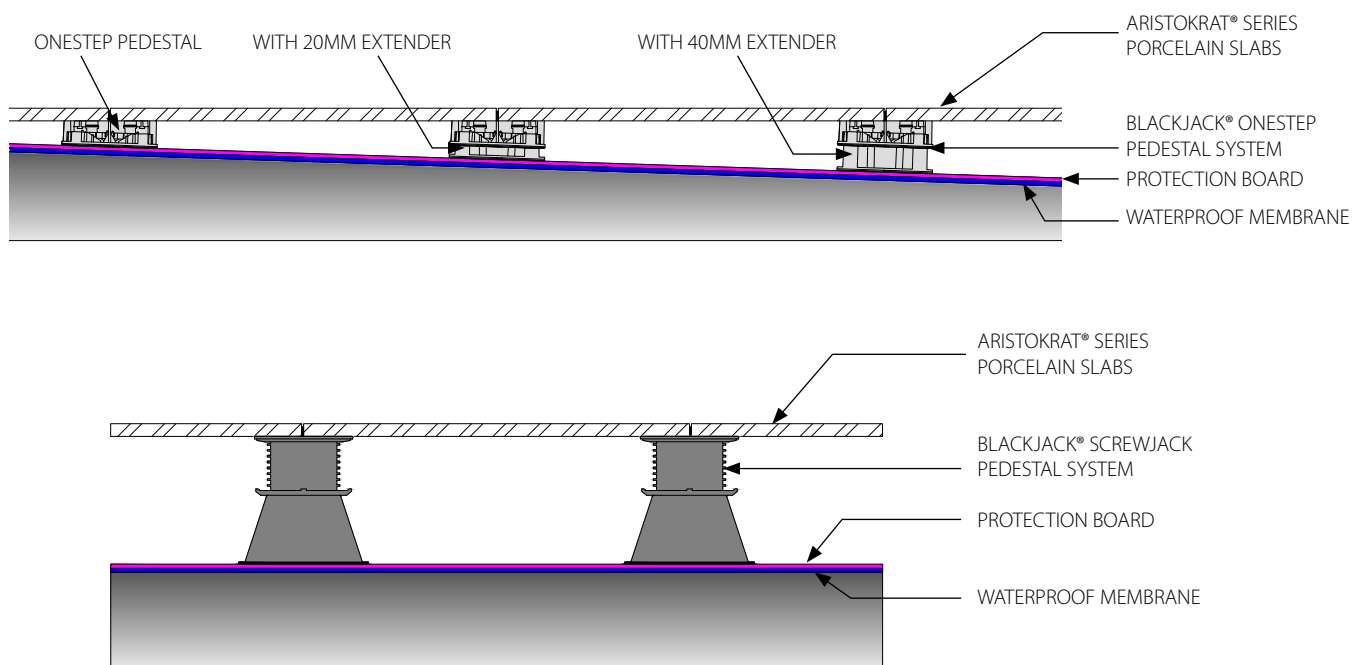
The Aristokrat® Series Porcelain Slabs may be shimmed in the corners to compensate for uneven laying surfaces; the shims used must not be compressible material such as rubber or roofing shingles but should be firm plastic shims.

The final Aristokrat® Series Porcelain Slab elevation can be perfectly flat, as it allows any surface water to travel through the 3 mm ( $\frac{1}{8}$ ") pedestal joints to the drains below.

It should be noted that due to the nature of porcelain, a small amount of water will remain on the surface of the slab. This is caused by the surface tension of the slab, just as you would experience with a glass table top. This water will evaporate over time or can be swept into the 3 mm ( $\frac{1}{8}$ ") gap between the Aristokrat® Series Porcelain Slabs.

This installation method is suitable for pedestrian use only; no vehicles of any kind should be allowed to be used over a pedestal installation.

Note: In most built up roof details, rigid insulation is used above or below the protection board. Any application that incorporates rigid insulation in a pedestal support system, the rigid insulation must be a minimum of 60 psi to support the slabs and usage payload. **We recommend that you do not exceed a height of 6 inches without the use of additional pedestal support in the centers of the Aristokrat® Series Porcelain Slabs.**



## Pedestal Set with BlackJack® Pedestal System



*Spacer tabs are easily removed or trimmed when necessary. Spacer tabs should never extend beyond the finished surface.*



*The BlackJack® Pedestal System ensures a perfectly level surface.*



*Placement of slab using hand held suction tools.*



*Using the BlackJack® Pedestal System you can achieve perfect finished grades and meet multiple elevation benchmarks.*



*Provide proper protection of pre-existing site conditions during installation (ie. wet cutting residue).*



*Softening the sharp cut edge with a grinding stone.*

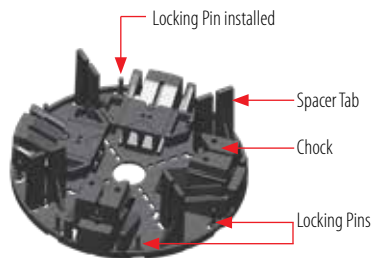
# BlackJack® OneStep System

**OneStep** pedestals are designed for slab support engineered to reduce material, construction and life-cycle costs. They have a height range of between .95" and 1.77" (24mm and 44mm). The height may be increased to 4.1" (104mm) by using BJ 20E and/or BJ 40E extenders.

**HalfStep** pedestals have a height range of .47" and .94" (12mm-24mm)

OneStep and HalfStep pedestals have individual chocks that can be adjusted independently in 1mm increments to compensate for uneven installation surfaces. Both pedestals can be separated into halves or quarters enabling flush placement along wall edges as well as inside and outside corners.

**The BJ - 4mm Pedestal** is an ultra-low fixed-height pedestal designed to support concrete, stone, tile and timber pavers. It also creates a drainage layer which reduces efflorescence and algae growth.



OneStep Pedestal



HalfStep Pedestal



BJ-4mm Pedestal



BJ 20E  
¾" (20mm) Extender



BJ 40E  
1½" (40mm) Extender



HalfStep Pedestal  
chocks placed at  
minimum height



HalfStep Pedestal  
chocks placed at  
maximum height



Double BJ-4mm as 8mm pedestal



½ BJ-4mm along wall edge



¾ BJ-4mm around corner

## Applications:

BlackJack® OneStep System is used to support a wide range of concrete, natural stone and marble slabs on:

- Roofs
- Balconies
- Verandas
- Plaza decks
- Swimming pool surrounds
- Patios

## System Advantages:

- Minimum height of .16" (4mm)
- Easy to install and lightweight
- OneStep provides progressive 1mm adjustment
- Lock height adjustment in place with locking pins
- Made from recycled polypropylene
- Accommodates slabs of inconsistent thickness
- Reduces construction time
- Reusable, suitable for temporary paving or retrofitting

## Construction Benefits

Height extensions and height adjustments are easy and convenient. Independent chock adjustments can be made to compensate for differences in slab thickness.

Eliminates need for bedding sand or cement screed, reducing the load burden on building structures. It also reduces installation time and costs.

Joint sealant and grouts are unnecessary between slabs. The slab gaps provide surface drainage and allow for expansion and contraction.

## High Compressive Strength

BlackJack® OneStep with Extenders up to 4.1" (104mm) has ultimate compressive strength of ≥ 5618 lb (25 kN).

## LEED® Points Available

BlackJack® OneStep System is manufactured from recycled polypropylene.



BlackJack® OneStep Extenders provide height extension up to 4.1" (104mm).



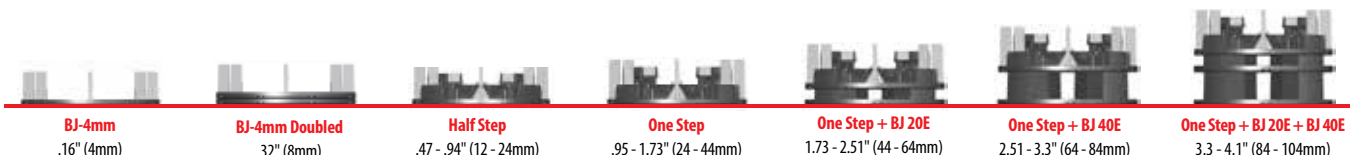
BlackJack® OneStep separated into halves enable flush placement along edges.



BJ-4mm ultra-low fixed-height pedestals.



Made from 100% recycled polypropylene



# BlackJack® ScrewJack Pedestals *Adjustable Support Systems for Slabs*



**BlackJack®** is a height and slope adjustable pedestal for slab and decking support, engineered to reduce material, construction and life-cycle costs.

It caters to a wide range of height requirements, from **27/8" - 40"** (74mm - 1016mm), using only three main components (Top, Coupler and Base). Accessories include top slope-correctors, spacer tabs, couplers and joist holders.

## High Compressive Strength

**BlackJack®** has high ultimate compressive strength for various height combinations.

## Supports Green Building

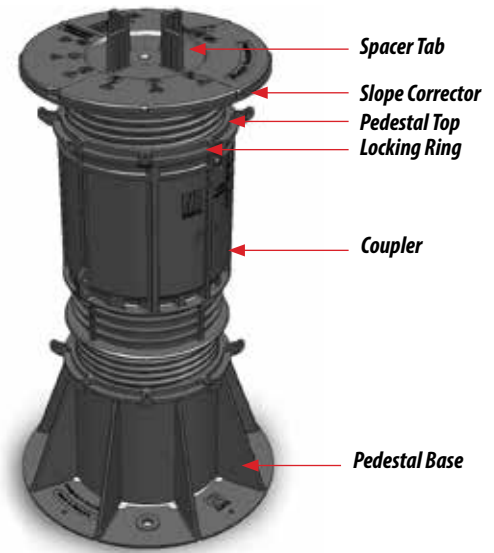
**BlackJack®** is manufactured from recycled polypropylene, LEED points available.

## Advantages

- Easy to install and lightweight
- Progressive height increments
- Top slope correction
- Easily removed and reused
- Made from recycled polypropylene



Unique **BlackJack®** Turning Tool (pictured below) connected to a power drill permits height adjustments to be made with minimum effort. Available from your Abbotsford Concrete Representative.

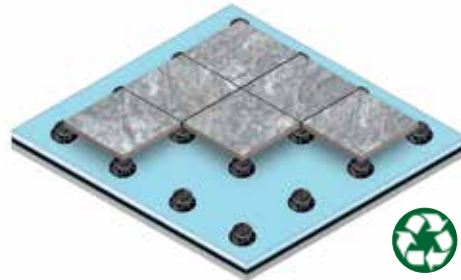



## Construction Benefits

**BlackJack®** provides a quick to install alternative to on-site fabricated concrete or metal piers.

It allows convenient progressive height adjustments and correction for fall. Desired height is secured with integrated Locking Rings.

The large flat base and rounded edges do not penetrate and compromise waterproofing membranes. The base flange design prevents water ponding and breeding of pests.



 Made from 100% recycled polypropylene

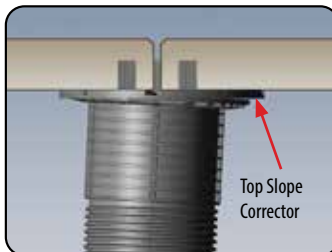
### Turning Tool

Turning Tool greatly reduces the time needed for height adjustments.



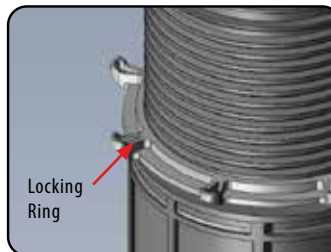
### Top Slope Corrector

Top Slope Correctors provide for slope compensation up to 5%, keeping slabs level on a sloping surface.



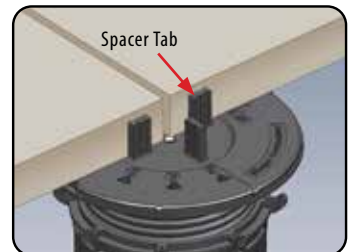
### Locking Ring

Locking Rings ensure pedestals are secured at desired heights and are easily removed when not required.



### Spacer Tab

Spacer Tab height 5/8" (15mm) with a thickness of 1/8" (3mm) between slabs.



# Mortar Set for Driveway and Garage Applications

Aristokrat® Series Porcelain Slabs can be laid with a thinset mortar set over concrete or for interior applications, over wood suitable for tile laying.

The concrete base must be reinforced so as to not crack or settle over time. The concrete surface must contain a minimum 2 percent slope away from the building and toward drains.

The anti-fracture membrane prevents any movement in the concrete base to be transferred directly to the Aristokrat® Series Porcelain Slabs.

All Aristokrat® Series Porcelain Slabs have an embossed backing texture to maximize adhesion to the thinset mortar. Some heavier applications require applying thinset to back of slab.

Install using a thinset mortar and grout that is designed for exterior applications. Typically this will be a synthetic or polymer modified exterior tile setting adhesive. Follow the manufacturer's recommendations for installation and proper application.

The finished surface must be sloped to provide water flow to the drains.

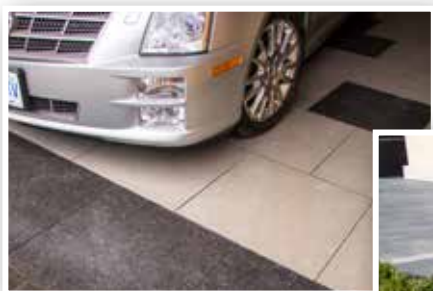
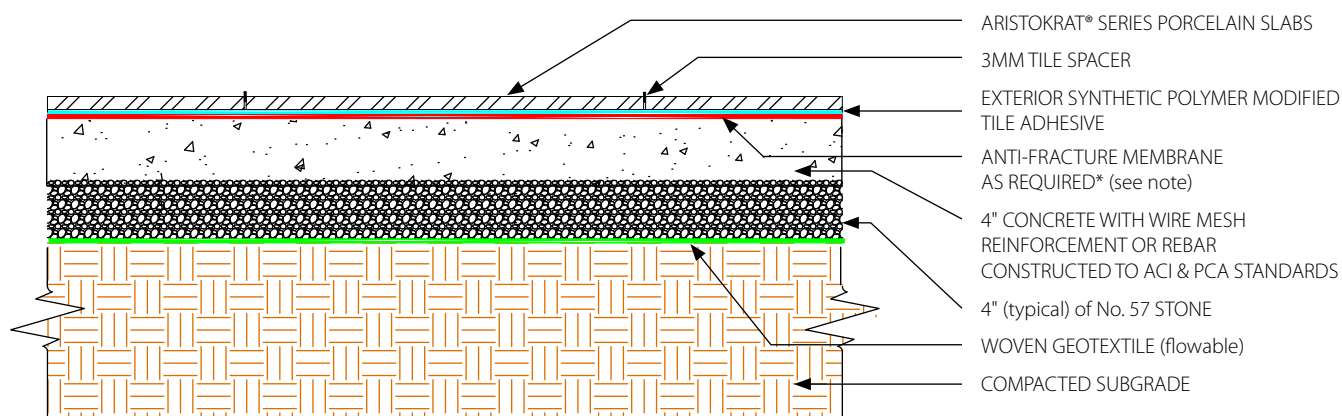
The Aristokrat® Series Porcelain Slabs must be cut and jointed over concrete control joints to avoid cracks propagating through the surface of the Aristokrat® Series Porcelain Slabs.

Mortar set Aristokrat® Series Porcelain Slabs are suitable for light passenger vehicles use only, heavy vehicles may crack the structural concrete slab leading to a damaged finished surface.

For interior applications install cement board on a solid and sound sub-floor.

## Typical detail:

1. Plywood subfloor  $\frac{1}{2}$ " –  $\frac{3}{4}$ "
2. Latex/modified thinset primer
3.  $\frac{1}{2}$ " cement board
4. Fiberglass tape joints
5. Exterior synthetic polymer modified tile adhesive
6. Aristokrat® Series Porcelain Slabs
7. Grout (exterior grade)
8. Seal grouted joints



\*NOTE: Anti-fracture / waterproofing membrane will be installed over control joints and areas subject to stress. This will mitigate propagation of cracks going to the surface of the Aristokrat® Series Porcelain Slabs.

# Expanded Polypropylene Panels (EPP) – Ideal for Residential and Commercial Projects

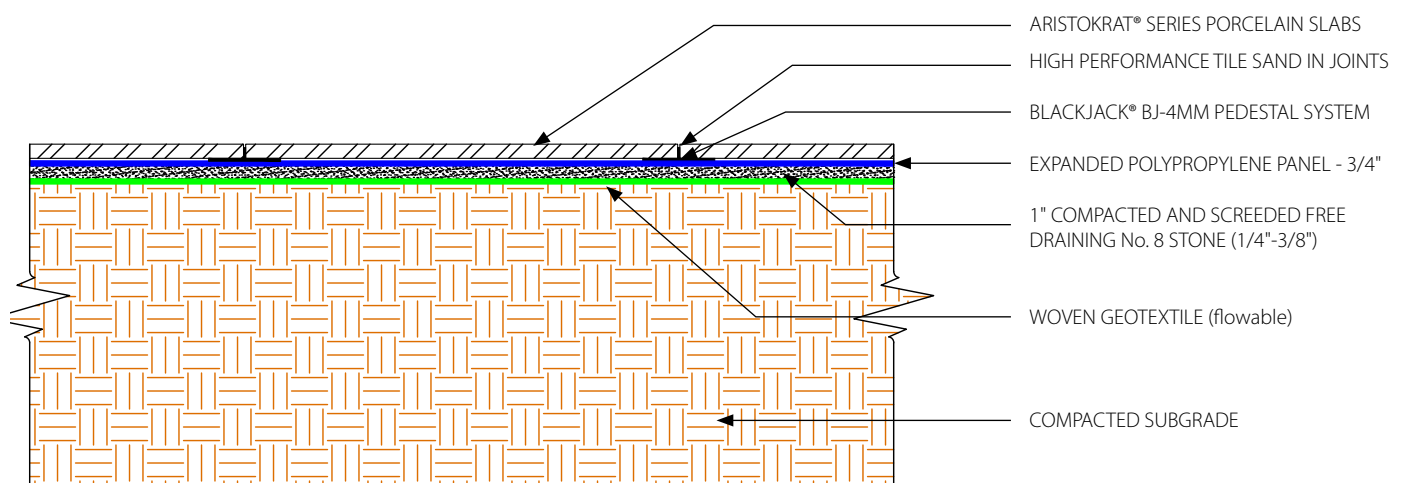
**Expanded Polypropylene Panels (EPP)** were developed to solve several site challenges at once.

The system involves a compacted subbase, laying a geo-fabric, a layer of free draining 1/4"- 3/8" aggregate (No. 8 stone) for leveling, an Expanded Polypropylene Panel (EPP), BlackJack® BJ-4mm spacers, the Aristokrat® Series Porcelain Slabs and Edge Restraint to contain the installation.

**The advantages of Expanded Polypropylene Panel:**

- reduced excavation,
- better drainage,
- better freeze/thaw protection,
- better load transfer,
- solid edge retention

Expanded Polypropylene Panels (EPP) are very helpful in laying Aristokrat® Series Porcelain Plank Slabs due to its pre-leveled design.



NOTE: If the compacted subgrade has a high clay content, 3/4" minus road base may be required.

# Aggregate Set

Aristokrat® Series Porcelain Slabs can be laid directly on grade with the use of the BlackJack® BJ-4mm Pedestals.

## **There are two types of aggregate lay installation:**

**Permeable**, where the water drains between the Aristokrat® Series Porcelain Slabs to a permeable layer below. The best material to be used for a bedding layer is 1"-2" of No. 8 (1/4" - 3/8") clear crush fractured aggregate. The base material will consist of 4" - 6" No. 57 (3/4") clear crush fractured aggregate. This allows all water to infiltrate to the subbase preventing frost heaves or water problems.

Both the subbase and bedding layers should be compacted providing a very solid free draining system. To minimize future migration of the No. 8 stone into the No. 57 stone, a light compaction is necessary to eliminate settlement. The use of geotextiles will enhance base performance based on pre-existing poor soil conditions.

**Impermeable**, where the installation uses grout or High Performance Polymeric Tile Sand to seal the joints and surface water flows to drains. This polymeric sand is swept into the joints, moistened and dries to a firm grouted joint. This sand has been developed to bond to the sides of Aristokrat® Series Porcelain Slabs and provide years of solid performance.

Over the bedding layer, the BlackJack® BJ-4mm Pedestal System is used at the corners of the Aristokrat® Series Porcelain Slabs to provide spacing and stability. The spacing of the pedestals should never exceed 18 to 24 inches in any direction depending on the dimension of the Aristokrat® Series Porcelain Slab. The Aristokrat® Series Porcelain Slab in the plank configuration should have a pedestal every 12 to 18 inches, depending on the installation method chosen.

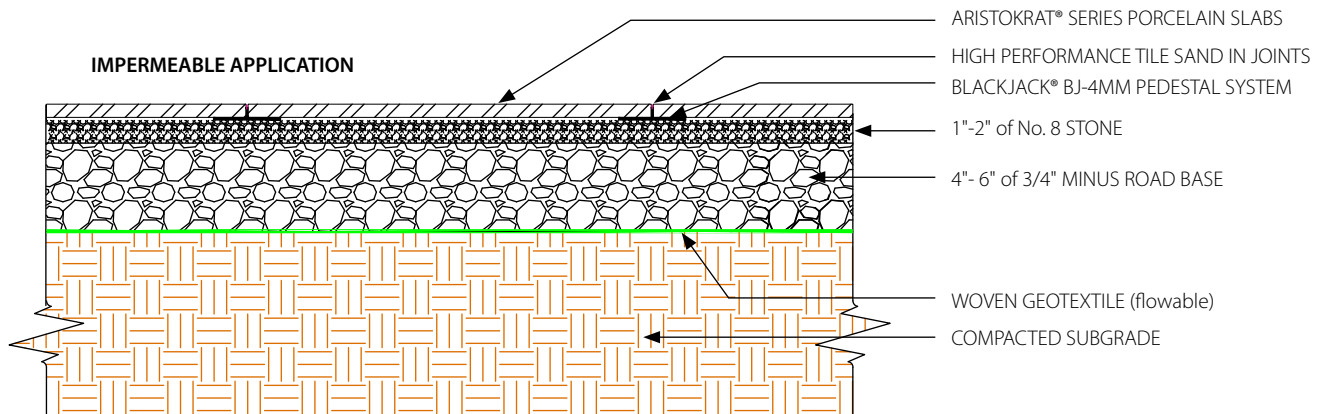
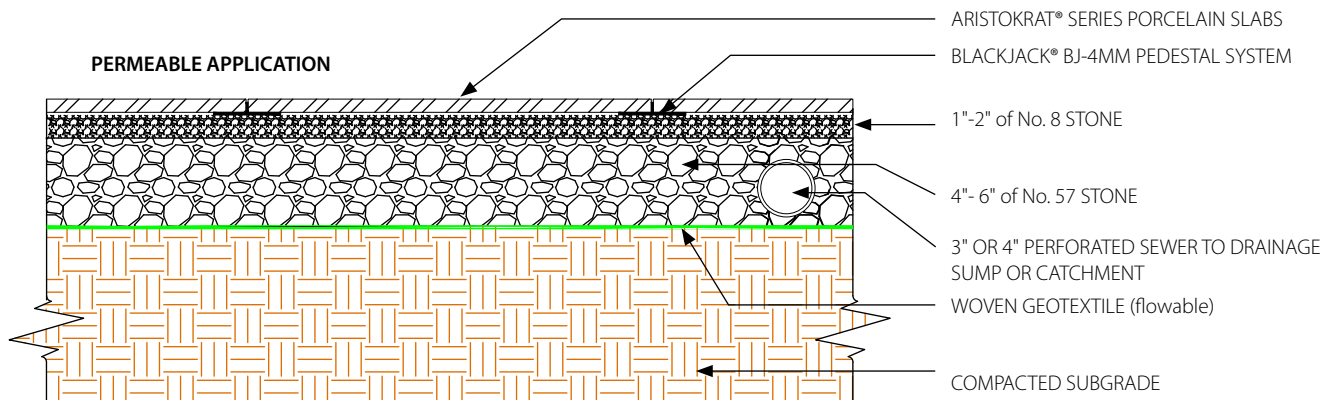
The installation must be retained on all sides with an edge restraint such as concrete, plastic or metal.

**In both cases, care should be taken to have a well compacted free draining subgrade to avoid freeze/thaw heave.**





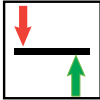







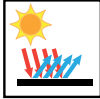


**Base cross section detail using Aristokrat® Series Carrara Marble over BlackJack® BJ-4mm Pedestals**

# Aggregate Set



# Aristokrat® Series 2cm Porcelain Slab Advantages

Test Method	Result	Test Method	Result
 <b>Water Absorption</b> CSA A23.2-11C ASTM C140	≤ 0.2%	 <b>Thermal Expansion</b> ISO 10545-8	$\alpha \leq 7 \times 10^{-6} \text{ } ^\circ\text{C}^{-1}$
 <b>Freeze/Thaw Resistance</b> ISO 10545-12	Resistant	 <b>Thermal Shock Resistance</b> ISO 10545-9	Resistant
 <b>Flexural Strength</b> CSA-231.1 ASTM C1782M (24"x24") ≥22 Mpa (3191 psi) CSA-231.1 ASTM C1782M (18"x18") ≥27 Mpa (3916 psi)		 <b>Chemical Resistance</b> ISO 10545-13	Resistant
 <b>Compressive Strength</b> ASTM C140	≥208 Mpa (30,000 psi)	 <b>Stain Resistance</b> ISO 10545-14	Resistant
 <b>Abrasion Resistance</b> ISO 10545-6	≤ 145 mm <sup>3</sup>	 <b>Slip Resistance</b> AMSI/NFSI B101.3 Dynamic Coefficient of Friction	Wet > 0.7 Dry > 0.6
 <b>Eco-friendly</b> <i>The Leadership in Energy and Environmental Design (LEED) Green Building Rating System is a third-party certification program for the design, construction and operation of environmentally efficient buildings.</i>		 <b>Size and Color Uniformity</b> <ul style="list-style-type: none"><li>• With the patent pending, advanced technology of <b>integral mix design</b>, our Aristokrat® Series Porcelain Slabs will avoid the problems encountered with other manufacturing processes or with natural stone such as internal cracks and color fading.</li><li>• Precise sizing greatly reduces installation time and cost as well as providing an overall consistent aesthetic finish.</li><li>• A 2 cm thick porcelain slab is equal in strength to a 4 cm minimum thickness of natural stone. This greatly reduces shipping and installation costs.</li></ul> <p><i>Our designers have aspired to create unique patterns and finishes to imitate the look of natural stone. Each color or piece in the Aristokrat® Series has subtle shading and pattern changes to emulate as though it were quarried from the piece next to it. Keeping in mind that nature creates but never duplicates, it is important when installing that you select slabs from numerous pallets to ensure even blending throughout your project.</i></p> <p><i>While the colors shown here are represented as accurately as possible, they should only be used as a guide. Actual full size samples should be viewed before making a final color selection.</i></p>	
 <b>LEED Points Available:</b> <ul style="list-style-type: none"><li>• Light color mix design recycle content of material for mainbody 24.5%, 100% recycled water.</li><li>• Dark color mix design recycle content of material for mainbody 41.7%, 100% recycled water.</li><li>• <b>SRI Value</b> (Solar reflective index) ASTM E903</li></ul>	15 to 67		

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BlueStone



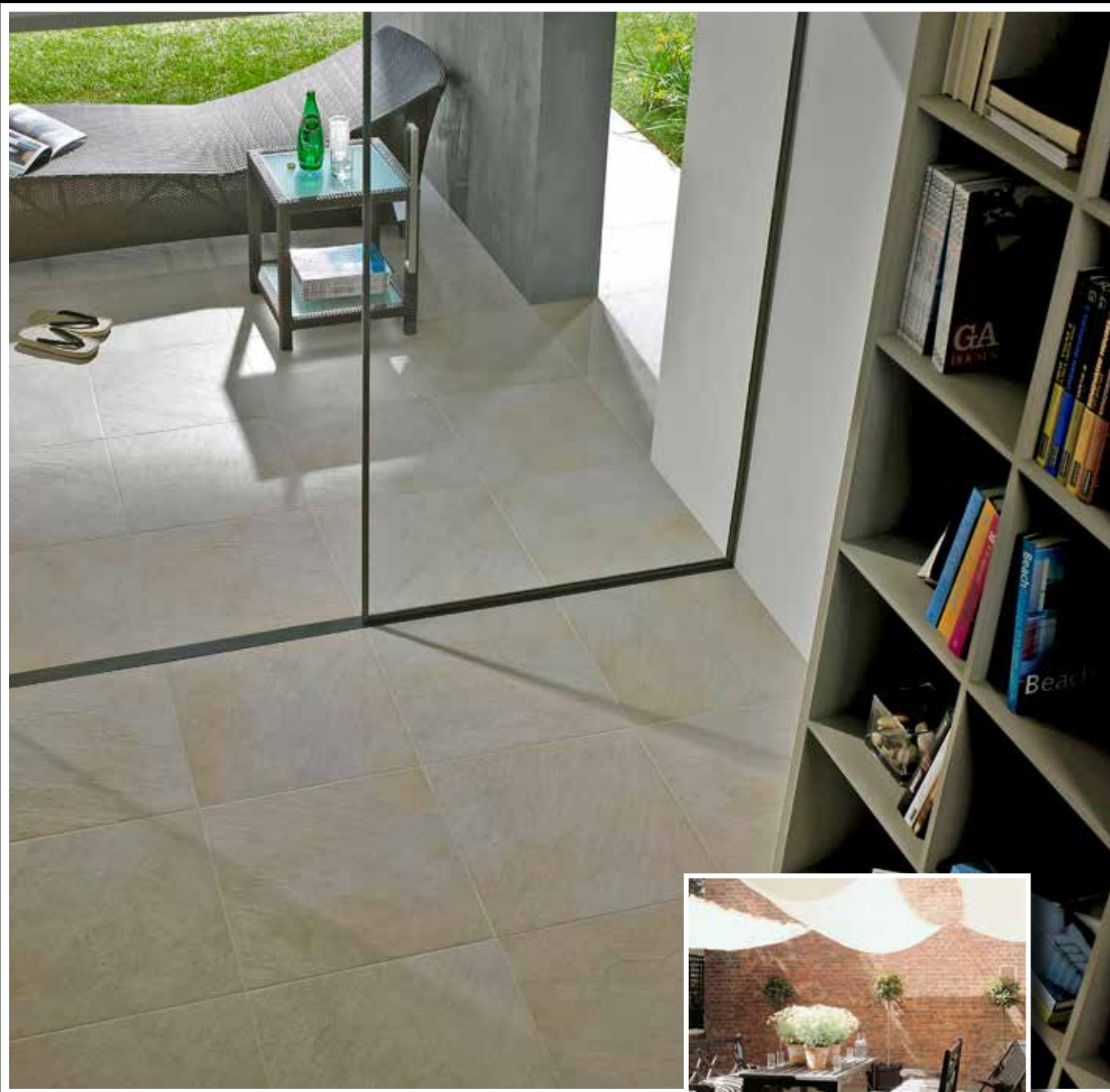
Cascade Granite



Exterior Cladding - Tuscan Travertine



Carrara Marble



Note: This document supersedes all previous versions. 28/01/2020



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