PRODUCT PRESENTATION FOR APPROVAL

APPLICANT: ANNE-LARE & ROMAIN RITTER

ZURI BRAND WALNUT COLOR 90 DEGREE TRIM GROOVED -12 FT PLANKS 1x6x16 GROOVED -16 FT PLANKS ZURI HIDDEN FASTNERS RE: Letter of intent - Consideration of decking material for one-time use

To whom it may concern:

We are new residents of Coral Gables, having just moved in to a new construction home at 6823 Portillo Street. Our home sits nestled within a series of magnificent oak trees which were fully preserved during the design and construction process and our now an integral part of our home.

This property was purchased with one key element missing from its design, a deck to enjoy the outdoor backyard space.

Unbeknownst to us of the need to have a permit for such a structure and for the use of specific materials, we started construction of this deck. While we now clearly understand the process that Coral Gables imposes for such builds, we have put the project on hold and are submitting a request for consideration for one time use of a synthetic, yet very premium decking material called Zuri. You will find a sample and technical details for this material enclosed.

We chose this material for three essential reasons: firstly, the use of Zuri over natural wood is in our mind a small step in limiting deforestation. Secondly, Zuri compared to most other synthetic decking materials is made to resemble real hardwood. This realistic look and feel is essential for us given the already extensive greenery and canopy that sits on our property. Thirdly, the oak trees that we love so much generate a lot of debris and natural staining that would be very hard to deal with in terms of maintenance with natural wood. A premium yet durable and low-maintenance option is essential to us.

Not that this should be a reason for your approval but please note that we have already purchased this material.

In summary, we are reassured by the research and development Royal Building Solutions Inc. has put into it making it a safe, durable, low-maintenance and realistic premium alternative to hardwood not to mention the fact that it will sit well aesthetically in the pristine Coral Gables environment.

We look forward to your approval and are ready to answer any questions that you may have.

Kind regards,

Anne-Laure & Romain Ritter



2



Product and Technical Data Guide

AFF

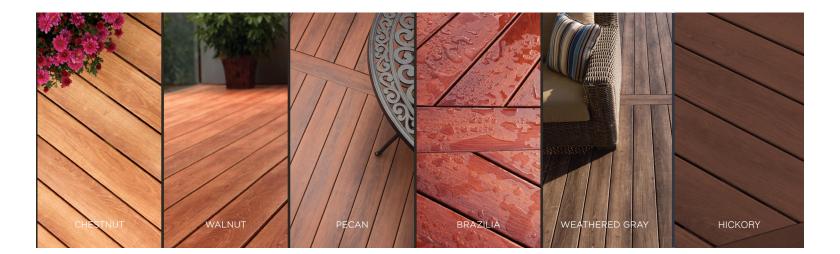


MISSISS S



Table of Contents

Materials Checklist	3
Product Specifications	4
Product Information	5
Wear Resistance	6
Stain Resistance	7
UV Resistance or Weatherability	
Surface Altering Chemicals	9
Surface Altering Products	10
Technical Data	11



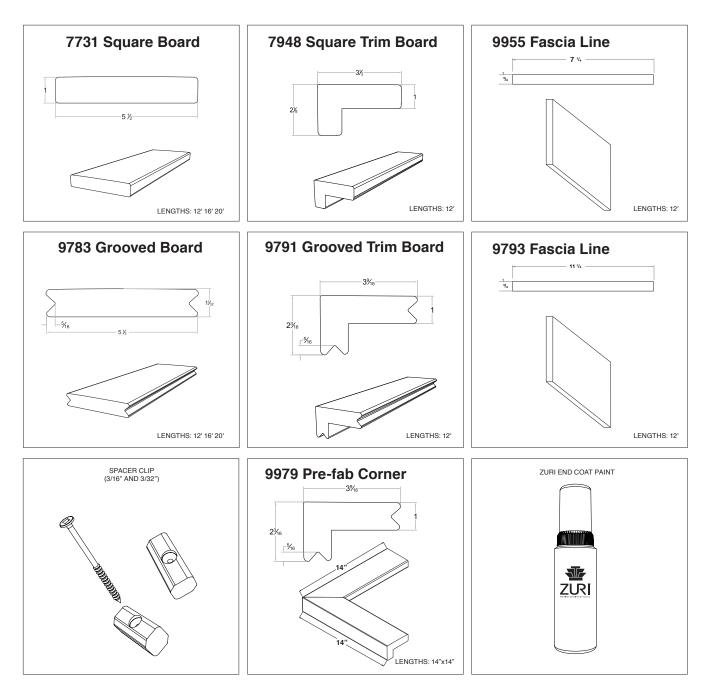


Materials Checklist

	☐ Cap-tor Screws
	☐ 2P-10 Activator and Glue
Center Married and Pro- Trailant Province Trailant Province Traila	Heavy-duty PVC Cement
Example of the second s	End Coat Paint Applicator
	Camo Guns - Camo Marksman Pro Please note: You may use the Marksman Pro NB for trims.
	Zuri Clips for grooved board



Product Specifications





Product Information

Profile	Board Length (ft)	Board Weight (Ibs)	Unit Weight	Pieces	Color	
	12'	19	1,216	64		
7731	16'	25	1,620		64	
	20'	32	2,020			
7948	12'	19	2,400	128	Weathered Gray	
	12'	19	1,216		Walnut Chestnut	
9783	16'	25	1,620	64		
	20'	32	2,020		Brazilia Hickory	
9791	12'	19	2,400	128		
9955	12'	17	910	54		
9793	12'	24	864	36		

Fasteners

Profile	Part Number	Fasteners
H5CLIP90	5667672	ZURI-SPACER CLIP W/ SCREW-3/16" (pk 90)
H5CLIP90	5667699	ZURI-SPACER CLIP W/ SCREW-3/32" (pk 90)
HUCLP900	5667701	ZURI-SPACER CLIP W/ SCREW-3/16" (pk 900)
HUCLP900	5667710	ZURI-SPACER CLIP W/ SCREW-3/32" (pk 900)

Zuri End Coat Paint

Color	Profile	Pieces
Brazilia	21043	
Walnut	21042	
Pecan	21041	6 por pook
Weathered Gray	21044	6 per pack
Chestnut	21045	
Hickory	21046	



Wear Resistance

What is Wear Resistance?

Resistance to abrasion is defined as the ability of a material to withstand mechanical action such as rubbing, scraping, or erosion. Zuri® has been designed to provide exceptional resistance to wear. The third layer is co-extruded acrylic with hardness greater than most conventional composite or PVC decking products, and a film thickness that far exceeds an interior floor finish. This Acrylic is used in products requiring similar toughness such as: Watercraft, kayaks, recreational vehicles, automotive and specialty optic lenses.

How to determine Wear Resistance?

Test Procedure: ASTM D4060 - 01

Taber tests involve mounting a specimen (Zuri Deck) to a turntable platform that rotates at a fixed speed. Two S-33 (sandpaper) abrasive wheels, which are applied at 1000 grams pressure, are lowered onto the specimen surface. As the turntable rotates, the wheels are driven by the sample in opposite directions. One abrading wheel rubs the specimen outward toward the edge and the other, inward toward the center while a vacuum system removes loose debris during testing.

Failure is noted when the abrader wheels wear through the coating into the substrate. The number of rotations required to penetrate the coating are recorded as "cycles".

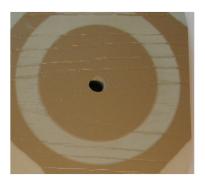


The Taber Rotary Platform Abraser

What does that mean to the consumer?

Zuri has a surface 30% harder than conventional non-wood decking products and a coating thickness (3) three times that of the interior flooring industry standard. Test data proves that Zuri's protective acrylic finish has wear resistance that exceeds that of the interior flooring. Simply stated Zuri® has been engineered to provide and maintain its aesthetics for many years.

Composite Deck with coating – cycles 200



Premium interior flooring (50 yr warranty) 600 to 900 cycles



Zuri® 1000 to 1500 cycles





Stain Resistance

What is Stain Resistance?

Stain resistance is the ability of a product to resist permanent discoloration when exposed to a foreign substance. The third layer of Zuri's technology is an acrylic cap that has the highest level of stain resistance in the decking industry today. This innovative coating is highly resistant to staining from food, household products, and organic debris, and will maintain its like new appearance for many years.

How is Stain Resistance measured?

AAMA 615 is an industry test procedure that is designed to measure the durability of coatings. The AAMA test exposes surfaces to detergent, window cleaner, and multiple acids. These products have no adverse effect on Zuri™ decking. A more practical test for decking is exposure to food and household products commonly found in the deck environment. Many common food and household products were allowed to cure onto Zuri for 30 days. In most cases the products were easily cleaned to like new appearance with only mild detergent, water and a wipe with a terry cloth rag, even after drying to a crusty and sticky mess.

- Wine
- Soft Drinks
- Salad Dressing

- Ketchup
- Mustard
- BBQ Sauce

- Bleach
- Sunscreen
- Muriatic Acid





Test results: mustard/wine

What does that mean to the consumer?

Thanks to the innovative technology, Zuri[™] is one of the most durable and stain resistant decking products on the market today. Zuri[™] eliminates the hassle of intensive cleaning and costly re-finishing required to maintain the ascetic of other products. Easy to clean and maintain, Zuri[™] decking will look great for many years to come. Simply stated, Zuri[™] looks great and stays that way with minimal effort.



UV Resistance or Weatherability

What is UV Resistance?

UV resistance is defined as the ability of a material to resist ultra violet (UV) light or sunlight. UV light, or sunlight, will cause non-resistant materials and surfaces to fade or discolor. Zuri® has been engineered to provide exceptional resistance to color fade. The third layer is a co-extruded acrylic enhanced with UV absorbers to block or shield the product from the harmful UV Sunlight. This Acrylic is used in other products requiring similar UV stability such as: Watercraft, recreational vehicles, automotive and specialty optic lenses.

How to determine UV Resistance or Weatherability?

QUV ACCELERATED WEATHERING TEST

The QUV accelerated weathering tester reproduces the damage caused by sunlight, rain and dew. In a few days or weeks, the QUV tester can reproduce the damage that occurs over months or years outdoors.

To simulate outdoor weathering, the QUV tester exposes materials to alternating cycles of UV light and moisture at controlled, elevated temperatures. It simulates the effects of sunlight using special fluorescent UV lamps. It simulates dew and rain with condensing humidity and/or water spray. For exterior approved products the test is typically conducted for a minimum or 2000 hr. (subjectively a representation of 5 yr real world exposure)

Pass / Fail criteria for the test vary with products and manufacturer's specs, but typically any color fade less than 2 Delta-E is perceived as excellent fade resistance.

Note: Delta-E is a single number that represents the difference between two colors with the idea that a dE of 1.0 is the smallest color difference the human eye can see

The samples below illustrate the Acrylics ability to block harmful UV light. Both samples are printed with a non-exterior print to simulate worse case scenario and one sample (1) was protected with Zuri's topcoat, the other (2) was unprotected. Samples were QUV tested for a period of 2,700 hours.

What does that mean to the consumer?

Zuri has continued to be tested in the QUV chamber with an unprecedented **17,000** hours of exposure with a color change of less than 1.5 Delta-E. This test duration is 10 times the typical test exposure. The color change after this level of exposure is undetectable to the human eye. Simply stated Zuri® will maintain its beautiful appearance and color for years to come.



Sample before exposure to test



Sample 2 <u>NOT</u> Protected with Acrylic Topcoat 11.62 delta-E color change





Surface Altering Chemicals

Some chemicals such as organic solvents, strong acids and plasticizers can alter the protective cap of Zuri decking. Oftentimes these chemicals are a component in common cleaners, degreasers, insect repellents and sun screen. It is important to understand which chemicals can impact the protective cap of Zuri and it is important to know which types of common products may contain these chemicals.

Following is a non-inclusive list of the types of chemicals that should not be used on Zuri Decking:

Ammonia

Gasoline

• Kerosene

Ethyl Alcohol

Isopropyl Alcohol

- Xylene
- Butyl Alcohol
 - Sulfuric Acid
 - DEET
 - Brake Fluid
 - Chlorine
 - >10% Acetic Acid
 - Plasticizers

- Lacquer Thinner
- Fantastic
- Lestoil
- Lysol Spray Disinfectant
- Lysol Basin & Tub
- Aromatic Solvents
- Chlorinated Solvents
- Petroleum Distillates

• Toluene

• Acetone

Benzene

When using products always read the product label prior to use and consult the manufacture if there is any uncertainty regarding the safe use of the product. It is incumbent to know and understand which chemicals are used in cleaning products, insect repellents, and sun screen lotions before use as these types of products may contain chemicals that could impact the surface of the deck. Many of these products include very clear warnings regarding their potential to damage or effect plastics, paint, varnish and other surfaces. Any product containing such warnings should never be used on Zuri decking. The use of products containing such materials may cause damage to the decking surface and will void the warranty.

Special care should be taken if using insect repellents or sun screen products that contain such chemicals near Zuri decking as inadvertent overspray or drips may damage the decking surface.

Products that have been tested and are safe to use on Zuri decking include:

· Soap and water

Soft Scrub CleanerGlass Plus Cleaner

Liquid Comet Cleaner

- Formula 409 Cleaner
- Spic and Span
- Mr Clean Cleaner

Clorox Bleach

- Sodium Hydroxide
- Deck Max Cleaner
- Deck Max Revitalizer

Stubborn stains may be removed by pressure washing with a maximum of 2700 psi and a 25 degree or greater cone nozzle. Excessive pressure with aggressive cone nozzles could cause damage to the board and void the warranty.



Surface Altering Products



Example of discoloration that can be caused by using these products on Zuri Deck.

Most "rubber" or soft plastic products contain chemicals known as plasticizing solvents to achieve the desired flexible properties. These plasticized, flexible plastics include products such as "rubber" or vinyl mats, welcome mats, garden hoses, rain wear, plastic tarps, vinyl gloves, inflatable swimming pools and inflatable toys, etc. The plasticizers used to create flexible properties can sometimes leach out of the product. This is often observed as "the new car smell", or the smell noticed when opening sealed packages containing flexible products such as rain wear or inflatable toys.

If these types of products are placed onto Zuri decking for extended periods, and the plasticizers migrate out of the product they can be absorbed into decking surface. If absorbed into the decking it can have the same effect on the decking as its intended use in the flexible product. While it is unlikely that enough plasticizer could be absorbed to change the structural properties of the decking there can be enough plasticizer absorbed to change the surface aesthetically. Most often this will appear as a shift in color such as whitening, fogging or hazing appearance on the surface.

Most flexible plastic products should not be used or laid directly onto the surface of Zuri. Use of such products could cause aesthetic changes in the surface and void the warranty.

Following is a non-inclusive list of the type of products to avoid using directly on Zuri decking:

• Rubber mats

Rain wear

• Vinyl mats

Plastic tarps

Latex mats

- Latex mats
- Inflatable swimming pools
- Inflatable pool toys
- · Garden hoses



Technical Data

	Test Method	Typical Value ¹	
Specific Gravity	-	0.60 - 0.65	
Weight per linear foot	-	1.46 – 1.58 lb/ft	
Modulus of elasticity	ASTM D7032	251,007 psi	
Modulus of rupture	ASTM D7032	5,042 psi	
Uplift Resistance	ASTM D7032	659 psf (face screw) 352 psf (camo) 261 psf (EB-TY)	
Coefficient of Friction	ASTM D2394	Longitudinal: Dry .86/ Wet .97 Transverse: Dry .82/ Wet .89 Exceeds all ADA requirements	
Creep Relaxation	ASTM D7032	98.60%	
Abrasion Resistance (S-33)	ASTM D4060	82 cycles/mil	
Coefficient of Thermal Expansion	ASTM D696	3.2 x 10 ⁻⁵ in/in/°F	
Flame Spread Index (Under Deck Burning)	ASTM E84	40	
Flame Propagation (Top Surface Burning)	ASTM E108/ ASTM D7032	Pass	

Residential Spans			
	Standard		
Span Rating Perpendicular	AC174	16" O.C.	
Span Rating 45° Diagonal	AC174	12" O.C.	
Stair Span Rating	AC174	12" O.C.	

3rd Party Product Evaluation Report

Pending

(1) The data presented in this technical bulletin was obtained from a statistical sample set of finished goods. Average values are reported. Testing was conducted by an IAS accredited third party laboratory. Actual results may vary due to environmental factors including UV exposure, climate, time, etc.

HEAT RETENTION

Zuri decking is designed to simulate the rich, dark colors of exotic hardwoods that have been finely finished. These dark colors tend to have heat buildup that might feel quite warm on a hot day with direct sunlight. Very dark colors can build up temperatures as much as 90° F above the ambient environment. While temperature is a major factor as to how hot a surface feels, there are other factors that contribute to how rapidly heat can be transferred from a material into the skin. For example a steel plate that is 130° will feel much hotter than a piece of wood that is 130° because it can transfer heat into the skin much faster than wood.

Zuri decking has heat buildup values that are very similar to several popular species of wood commonly used for decking that have been finished. The following table illustrates Zuri decking as compared to similar hardwood species that have been finished with a Helmsman Spar urethane coating.

Finished Wood Species	HBU*	Zuri Color	HBU*
Pressure Treated Pine	71	Chestnut	56
Mahogany	73	Pecan	55
Garapa	74	Weathered Gray	58
Cumaru	76	Walnut	56
IPE	77	Brazilia	55
		Hickory	56

* HBU (Heat Build Up): A measure of temperature gain of a surface that is exposed to direct sunlight. Royal® Building Products exists for one reason: to push the limits of what every type of exterior can be. We strive for best-in-class manufacturing and industry-leading innovation. What drives us? Every homeowner who demands exteriors that add value, perform impeccably, look amazing and make their lives easier. Our goal is to bring more products, more styles, more technology, more design insight and more sustainable solutions to the attention of everyone who cares about creating the best exterior possible. Build Royal™





CELECT® CELLULAR COMPOSITE SIDING













HAVEN® INSULATED SIDING

ROYAL® VINYL SIDING

ZURI® PREMIUM DECKING

ROYAL[®] SHUTTERS, MOUNTS & VENTS







ROYAL[®] Building Products A Westlake Company



Raise your decking profile with Royal Building Products.

RoyalBuildingProducts.com/Zuri 1.855.ROYAL85

For product warranty details, please visit ZuriWarranty.com © 2020 Royal Building Products





What if gorgeous took care of itself?

ZURI SQUARE BOARD IN PECAN

2

Decking that matches

the richness and warmth of

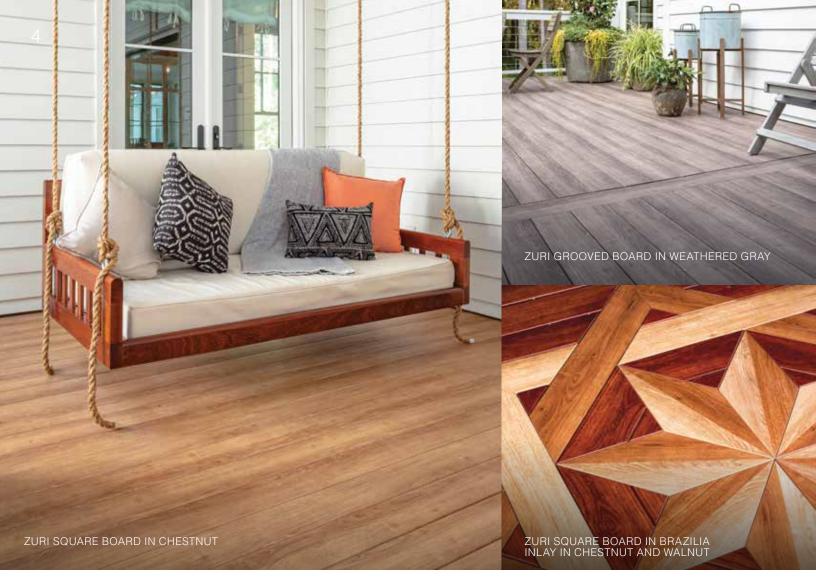
exotic hardwood is worth seeking.

Especially when it innovatively

combines sought-after looks

with high durability and

few maintenance demands.



Zuri[®] Premium Decking: More presence and possibilities

What if the look and feel of exotic hardwood decking came with none of its maintenance demands? What if there were zero tradeoffs, seamless indoor-outdoor transitions and nothing but unique exterior design possibilities?

Our distinctive inlay design, style and color options add a dramatic visual draw to long runs of diagonal decking. Make an even bigger personal statement by working with one of our designers to create your own detail.



Innovative technology that rewards you with time.

Zuri is the ultimate result of passionate forward thinking and attention to detail. Its proprietary technology ensures you'll admire its aesthetics without a thought toward resealing, staining or repainting.

- Zuri's cellular PVC core and acrylic topcoat provides exceptional resistance to UV light and color fade.
- Each decking shade will retain its just-installed look with minimal color shifting; we back it with our 25-year Color Fastness Warranty.
- Zuri is engineered to be resistant to scratches, stains, color fading, slips and moisture.

Nothing comes close to Zuri.

Especially this close.

Achieve stunning depth through color variation.

Zuri expands expression by giving you real color choices. Chestnut evokes joy. Pecan and Brazilia introduce natural vibrancy. Weathered Gray expresses sophistication and induces calm. Enhance the richness of each color by mixing, matching and combining them. Complement and elevate your entire home by varying and combining hues.

ZURI GROOVED BOARD IN WEATHERED GRAY AND CHESTNUT

1

1000

7

9

20/1

1960

11 W 18 8 8 14

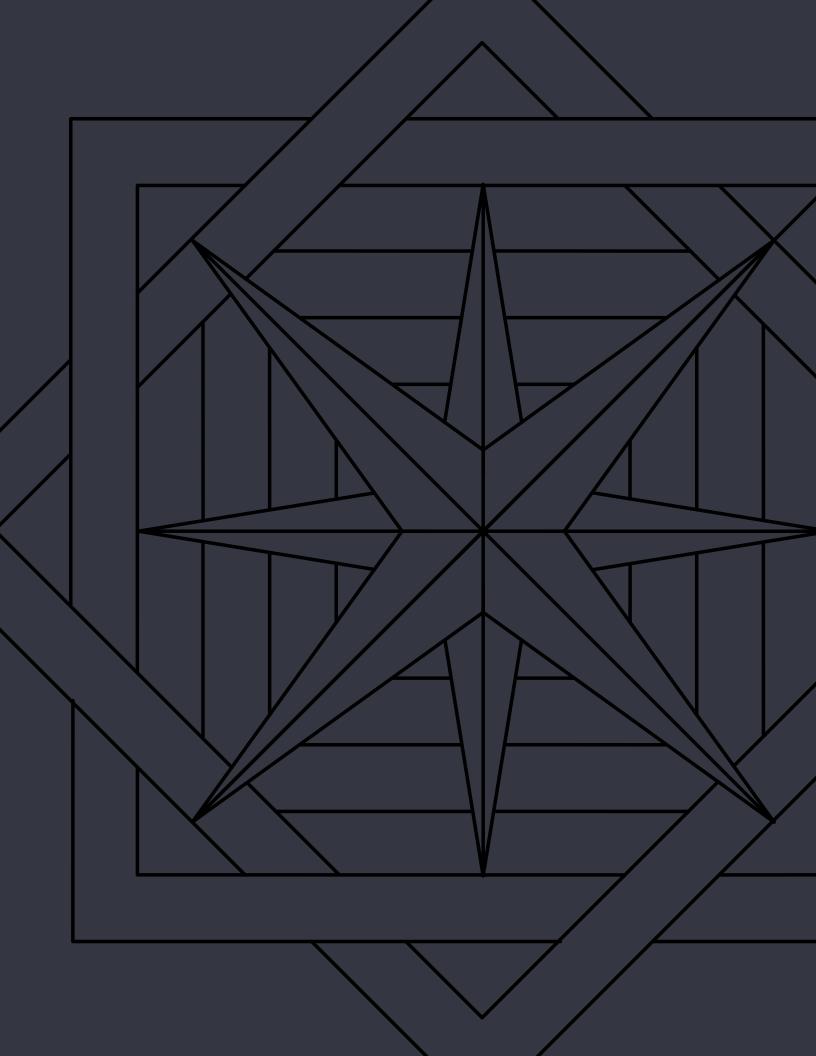
â

(Frithing)

Personalize and define with inlays and fascia.

The more time you spend in your outdoor space, the more you'll want to personalize it. Incorporate an inlay into a long run of decking—with a distinctive Zuri[®] design or your own unique detail—to match the aesthetic of the rest of your home. Or simply make a bold statement that stands on its own.

Used below the deck or on a stair riser, Zuri Fascia boards help define the shape of your decking. They possess all the weatherable durability and come in the same complementary colors as Zuri Decking.





Zuri was engineered to transform.

With its color, texture and minimal grain pattern repetition, Zuri compels close inspection. You'll find its exotic wood looks perfectly showcased by Zuri Square Boards and Grooved Boards and ably accented by Zuri Fascia.

Our square boards exhibit classic wood beauty, with no painting, staining or resealing. Our grooved boards owe their sophisticated presence to a simple and aesthetically pleasing hidden-fastener installation. Zuri[®] Premium Decking by Royal[®] distinguishes itself on every level, from beautiful presence to low-maintenance durability—and Zuri[®] fascia is the ideal accent. It can be used below the deck or on a stair riser. Plus, it comes in a variety of perfectly complementary colors.

- Comes in 1" x 8" and 1" x 12" widths, 12' lengths
- Can be used for stair risers
- Complements the beauty of Zuri decking



Six colorful ways to distinguish your outdoor space.

From vibrant to neutral to weathered, Zuri's color options give you a variety of ways to put your personal stamp on your home exterior environment. And every color is backed by a 25-year Color Fastness Warranty against color shifting.



Boards available in 5/4" nominal x 5-1/2" wide, 12', 16' and 20' lengths.



Expand the boundaries of beautiful.

Keep your indoor-outdoor transitions seamless. Zuri helps you merge your interior and exterior into one stunning living space. So dining and living rooms gracefully extend into backyards and beyond. The ideal outdoor environment

for the homeowner who

loves to relax but never settles.



Raise your decking profile with Royal Building Products.



Royal[®] Building Products exists for one reason: to push the limits of what every type of exterior can be. We strive for best-in-class manufacturing and industry-leading innovation. What drives us? Every homeowner who demands exteriors that add value, perform impeccably, look amazing and make their lives easier. Our goal is to bring more products, more styles, more technology, more design insight and more sustainable solutions to the attention of everyone who cares about creating the best exterior possible. Build Royal[™]







ZURI® PREMIUM DECKI



ROYAL® SHUTT MOUNTS & VEN





PORTSMOUTH[™] SHAKE & SHINGLES





MROYAL Building Products



Raise your decking profile with Royal Building Products.

RoyalBuildingProducts.com/Zuri 1.855.ROYAL85

For product warranty details, please visit RBPWarranty.com © 2021 Royal Building Products







Instructions

Table of Contents

4
5
6
7
8-9
10-11
12-15
16-17
19-25
26
27-35
37-39





Before installing any decking materials or stairway materials, review the following guidelines and installation instructions for proper installation procedure. Zuri® Decking has similar behavior to wood and composite decking; therefore, similar installation techniques should be used. In order to avoid improper installation, additional techniques, recommendations, and guidelines have been provided below. Following the provided instructions while using the same good building principals used in wood and composite decking installation will result in a correct Zuri® Decking installation.

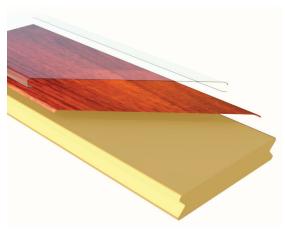
Although Zuri® Decking is similar to wood and composite decking, it may not be appropriate for every application. Royal Building Products cannot be held liable for improper installation of Zuri® Decking. All deck structural framing should be built in accordance with local building codes. Many municipalities require decks to be designed by a local architect or engineer. It is recommended that you consult your local building code compliance office for any requirements. If you have any questions or need further assistance, please call 1.855.ROYAL85 or visit zuri.royalbuildingproducts.com.



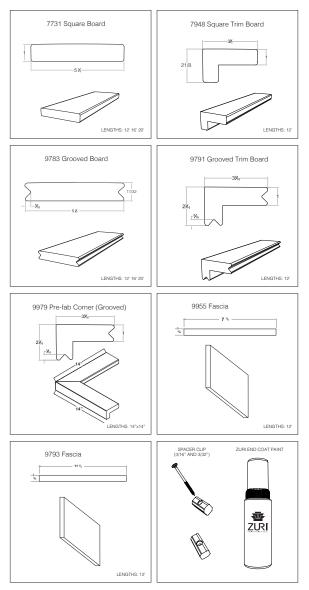
What is Zuri Decking?

A new & unique technology that combines Cellular PVC, Photorealistic Print, and Premium Acrylic to create a deck board like no other. A few key points:

- No resealing, staining, or painting required
- Scratch resistant
- Fade resistant
- Moisture resistant
- Stain resistant
- Slip resistant



Product Specifications



Product Information

Profile	Board Length (ft)	Board Weight (lbs)	Unit Weight	Pieces	Color
	12'	19	1,216		
7731	16'	25	1,620	64	
	20'	32	2,020		
7948	12'	19	2,400	128	
	12'	19	1,216		Weathered Gray Walnut
9783	16'	25	1,620	64	Chestnut Pecan
	20'	32	2,020		Brazilia Hickory
9791	12'	19	2,400	128	Thetery
9979	14" x 14"	3	400	120	
9955	12'	15	910	54	
9793	12'	24	864	36	

Fasteners

Profile	Part Number	Fasteners
H5CLIP90	5667672	ZURI-SPACER CLIP W/ SCREW-3/16" (pk 90)
H5CLIP90	5667699	ZURI-SPACER CLIP W/ SCREW-3/32" (pk 90)
HUCLP900	5667701	ZURI-SPACER CLIP W/ SCREW-3/16" (pk 900)
HUCLP900	5667710	ZURI-SPACER CLIP W/ SCREW-3/32" (pk 900)

Zuri End Coat Paint

Color	Profile	Pieces
Brazilia	21043	
Walnut/Pecan	21042	
Weathered Gray	21044	6 per pack
Chestnut	21045	
Hickory	21046	

Storage & Handling

Material Storage

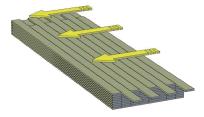
Zuri has been properly packaged from the manufacturer and should be stored and transported in this packaging until installation. The packaging also includes the arranging of the grain patterns to ensure pattern variation during the install, so the installer should work from one unit at a time.

- Leave protective shroud on decking material throughout the installation to avoid damage, protect from construction debris, and maintain a consistent board temperature.
- Store decking material on a flat surface to avoid bowing or warping (adjusting support blocks may be required on uneven ground).
- Use protective corner clips when banding to prevent stress damage to the decking material.
- Do not store in heat exceeding 120°f.

Material Handling

Although Zuri has been developed with the Trivance™ Technology and has durable low maintenance features, special care is requested when handling these boards to minimize scuffs, nicks, and to preserve the beauty of the finish. Think of the product as a prefinished wood in perspective to handling. A few key guidelines when moving and working with Zuri:

- **NEVER** dump Zuri prepackaged products when unloading.
- Installing Zuri below 40°f is possible but is discouraged (end coat & glues will not work properly).
- When carrying product, use two people and stand board on its edge for better support.
- Avoid sliding the back of the product (tan substrate) against the face (clear protective coat) during the moving or working of the material. When removing product from packaging, lift the board as opposed to sliding on its edge.
- Avoid sliding or dragging tools and equipment during the construction process.
- Keep the work area clean and free from scrap or construction debris.
- After installation, protect deck from masonry dust, sheet rock dust, and other typical construction debris.
- Zuri deck boards should be removed working horizontally across the unit, one layer at a time, installing every other board as illustrated. This will ensure grain pattern variation throughout the build. Be sure to always check the grain pattern before fastening the board.



Tools & Equipment

Safety:

As with all construction projects, the proper safety equipment should be utilized at all times (i.e. safety glasses, hearing protection, gloves, etc.). Dust mask and long sleeves may be used if you are cutting in confined areas. Safe lifting practices should also be used when handling product as the weight and flex of the product can be awkward.

Tools:

Zuri has been created to have a finish comparable to that of interior hardwood flooring, with a durability and toughness to withstand the harsh outdoor elements. Therefore special attention is required when cutting and working with the product, the mind set should mimic that of working with any prefinished material. For this reason the tools required may be outside the scope of a conventional deck contractor and more in the realm of a finish carpenter. A list of tools:

Saws & Blades:

- 10" or 12" Miter Saw Used for finished end-cuts and Trim miters
 - Minimum Blade requirements Carbide 60 to 80 tooth
 - Blade recommendation CMT 96 tooth fine finish (12")
- Jig Saw used for cutting notches around obstacles, protrusions (IE posts, columns)
 - Minimum Blade requirements 10 TPI
 - Blade recommendation 10 TPI with board positioned Face Down
- Circular Saw or Portable Table Saw Used for ripping deck boards
 - Minimum Blade requirements Carbide Tooth 24 T (7-1/4" blade) & 60T (10" blade)
 - Blade recommendation (7-1/4") 60 T Skill Saw Carbide finishing (10") CMT 80 T Fine finish

Work Station:

It is recommended to use a miter saw stand, roller stands, or out feed tables when cutting Zuri decking and trims. The objective is to support the material during the cutting process.

Drills & Drivers:

Drills and drill bits as well as impact drivers and appropriate driver tips are required.

Layout Tools:

• Typical tools required such as tape, chalk line, straight edge, etc



Design & Layout

Design Principles:

Due to the diversity of installation scenarios it is the installer's responsibility to determine the specific requirements for each application. Royal recommends that an architect, engineer or local building official review Zuri applications prior to install. The intent of the instructions is to set forth principles, work parameters, and provide a working knowledge of Zuri's characteristics.

Zuri is not approved for rooftop applications.

Expansion/Contraction:

Expansion and contraction are most significant where extreme temperature change exists. All PVC moves with temperature change and it moves differently from wood decking products. Wood will typically expand and contract in the width direction and Zuri will move in its length. Moisture has the biggest impact on wood and no effect on Zuri's PVC substrate. The key to a successful build is planning for this lengthwise movement. A few ways to control movement are:

- Fasten boards within 1/2" of the ends.
- Butt joints must be tight above 40°f below leave 1/16" gap.
- Minimum of 1/8" space between any structure, post, or obstruction and Zuri boards.
- Upon cutting board to finished length, install as soon as possible.
- On long decks (20' and greater), orient the boards to run boards in the narrow direction. For example – on a 40' x 10' build, install 10' boards perpendicular instead of 20' boards parallel to the structure.

Zuri Trims

Zuri Trim is designed as part of our Decking Solution and is required on all builds where the deck board ends would otherwise be exposed. The trim is designed to protect the ends of boards, provide transition solution and overall aesthetic. Best practices are:

- PVC glue all miter joints.
- Do not glue butt joints (to create an expansion joint).
- Use a supporting block when cutting on Miter saw to ensure proper angle.

Zuri Coated Ends

Zuri requires all visible ends to be coated to conceal the lighter colored substrate. This is purely cosmetic, but it is required from an aesthetic perspective. Coating should be applied after cutting and prior to the installation of all boards. The coating colors are available in corresponding colors in an applicator from your Zuri Lumber Yard. If larger areas require coating such as fascias, framing, and railing components, we provide a color match (to end coat color) from Sherwin Williams as listed below.

- Weathered Gray Sherwin Williams: 2840 Hammered Silver
- Pecan Sherwin Williams: 1112 Setter's Coat
- Walnut Sherwin Williams: 1112 Setter's Coat
- Brazilia Sherwin Williams: 6062 Rugged Brown
- Chestnut Sherwin Williams: 6117 Smokey Topaz
- Hickory Sherwin Williams: 6076 Turkish Coffee

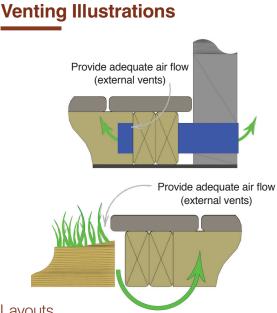
Zuri Pattern Variation

Zuri provides different grain patterns. The product is packaged to aid in pattern variation, but installer must be mindful throughout the build to make certain pattern variation is maintained.

Patio Decks:

Zuri is a suitable and logical product for patios (sunken framing) as long as the following principles are applied to the substructure (framing):

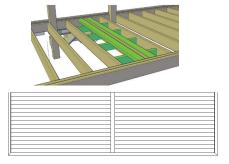
- Framing must be soundly attached to the patio and should be anchored. (no floating framing)
- Framing minimum joist height of 3-1/2"
- Framing must be vented to allow heat to escape (ambient air should not exceed 160°f)



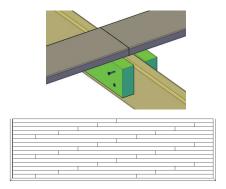
Layouts

The layout or board orientation can have a big impact on the finished products appearance and perceived performance. Points of consideration.

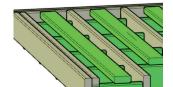
Feature board / Breaker board – This concept will disguise movement the best. By strategically placing a board perpendicular to the main build direction, this will simulate shorter runs and the perpendicular board moves very little in the width axis resulting in half the gap size of conventional joint.



Staggered butt-joints - On runs exceeding 20' or unique builds that have need of butt-joints, additional framing is required to help control movement. Blocking or "sistering" on each side of all butt joints is mandatory. The blocking must be screwed to mating frame tightly.



Inlays, borders, and medallions – This concept, like the feature board, will aid in canceling the movement of Zuri. It is imperative that the framing is altered to accommodate design. Zuri cannot be cantilevered more than one inch.

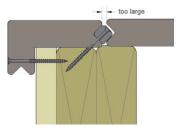


|--|--|

Framing

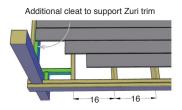
Building codes and/or officials should be consulted prior to Zuri installation to confirm structure conforms to local requirements. Zuri is load bearing, but should never be used for structural framing. The quality of the framing will directly impact the overall appearance of the Zuri decking as Zuri will conform to the shape of any uneven framing.

- We suggest framing with premium framing lumber. This wood is usually lighter, straighter, and will not expand or contract as much during construction.
- Joist system must be level and flush. This is particularly important with grooved decking (see illustration below).
- Install all railing posts of post supports prior to Zuri install. Railing supports must NOT be attached to Zuri Decking.
- Surface mounted railings cannot be mounted to or through Zuri.



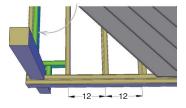
Joist Spacing:

Cellular PVC is not as rigid or stiff as traditional hardwoods; Zuri boards are code approved for a 16" on-center installation. For a more rigid, firm, or wood like stiffness 12" on-center construction is recommended. 24" on-center is unacceptable for Zuri. 16" on-center – is permissible for standard residential applications. This only applies if boards are installed perpendicular to joists.



12" on-center – is required for high traffic areas, commercial builds and installs using a 45° or herringbone layout.

Additional cleat to support Zuri trim



12" on-center - is required for all step stringers.

Additional cleat to support Zuri trim

Fasteners

Zuri Clip and Screws

To secure Zuri v-groove decking, it is recommended that Zuri deck clips with the supplied fastener be used wherever possible.

Clips are available for either 3/16" or 3/32" deck board spacing. They are identified by the labeling on the top of the clip. NOTE: the screws are 316 stainless.



Headcote Cap-Tor - #10 x2-1/2" Screws

Use to face-screw Zuri Trim. NOTE: 305 stainless for inland builds and 316 stainless for seaside or brackish water applications.

Approved for use with ACQ treated lumber

Available in color matched coating

Weathered Gray: Tan Gray #31

Pecan: Cedar #81

Walnut: Brown #34

Brazilia: Mahogany #82

Chestnut: Buckskin #63

Hickory: Java #73





Installation progression

Zuri must be installed in the following sequence. This section will be divided in order of installation: Screw position - no

- Fascia / Skirt Board Main body of build (DO NOT clad stair risers at this point)
- Zuri Trim
- Main Body Decking
- · Steps and Landings



Step 1 – Fascia / Skirt board

All fascias should be installed prior to decking. We suggest using Zuri Fascia with Headcote Cap-Tor Screws or Royal Cellular PVC trim products with Cortex[™] or Starborn pro Plug style fasteners. Full installation instructions for this application are available at **www.royalbuildingproducts.com**. A few application specific guidelines are:

- Fascia must fully cover framing, as it will support the Zuri Trim
- All miter joints are to be glued PVC cement
- Expansion joints are required on runs exceeding 20' shiplap joint is recommended
- Required Fastening schedule for PVC Trim
- Boards 6" wide or less 2 fasteners, 16" on center
- Boards 8"to 10" wide 3 fasteners, 16" on center
- Boards 12" wide or more 4 to 5 fasteners, 16" on center
- To help ensure grain pattern variation, rotate Zuri Fascia boards. Be sure to always check the grain pattern before fastening the board. For best results, make sure you square the board by trimming the end.

Shiplap Joint

No glue on this joint

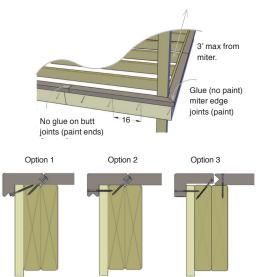
Paint with color matched Zuri end coat when using Zuri Fascia

zuri.royalbuildingproducts.com

Step 2 – Zuri Trim

Install Zuri trim around the entire perimeter of the deck body. Do not trim steps at this time. The trim must be installed with a combination of face screws and one of the approved fastening systems. Please use the following techniques:

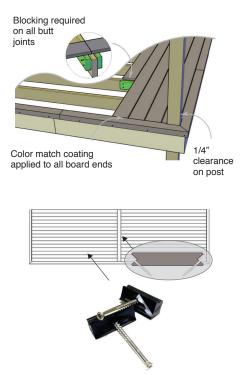
- Maintain straight lines and square corners as this will be starter for decking.
 - When laying out the Zuri trim, snap a chalk line 2 3/8" to 2 ¼" back from the fascia. This provides a space between the trim and the fascia allowing for expansion/contraction and helps hide any framing inconsistencies.
 - Use framing square, 3-4-5 method, or cross measure to maintain square.
- Secure face with Headcote Cap-Tor #10 x 2-1/2" Screws. (see options below - option 1 or 2 preferred. Option 3 for use with square trim board.)
- Use prefabbed corners #9979 for mitered corner joints OR field fabricate corner miters. All miter joints must be glued (PVC cement).
- All miter joints must have an expansion joint within 3' to allow for movement.



Step 3 – Zuri Main Body Decking

Install Zuri deck boards with one of the two approved fastening methods. Work from the trim side or highest traffic area toward the structure or least traffic area. Remember to monitor the grain patterns to guarantee grain variation. Feature boards, transition boards, and/or inlay work should be installed first and then the main body. This allows for more precise cutting.

- · Follow the selected fastening systems instructions.
 - Secure feature boards with Headcote Cap-Tor #10 x 2-1/2" Screws.
 - Secure decking boards with Zuri clips and fasteners as shown below (arrow facing upward.)



Step 4 – Step Options

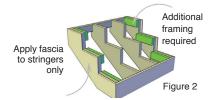
Zuri step installation is a bit different than conventional methods and requires the same attention to the installation sequence as the main deck. The following progression will be

the order of install and each process must be completed before moving on to the next. This section only covers the Decking/ Fascia applications and presumes framing is complete.

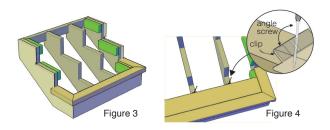


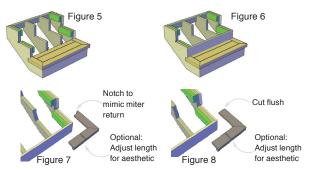
Option 1

- 1. Mount the fascia on the stringers and first riser (fig. 2).
 - Follow same guidelines listed in the Fascia/Skirt Board section
 - NOTE: Notch the stringer to accommodate the trims (fig. 1).



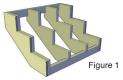
- 2. Attach in sequence the trim, decking, then next riser
 - Cut and pre-assemble the trims for each step. * For Pre-Fab Corners, see figures 7 and 8.
 - · Install the assembled trims as directed in the trims section
 - **TIP:** Remove screw from clip and re-drive at 45° angle to avoid driver interference with stringer (fig. 3)
 - Face-screw the back of each final tread board within 3/4" of the ripped edge (fig. 4). Screws will be covered by risers.





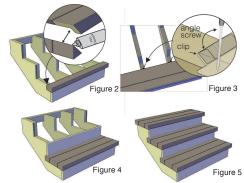
Option 2

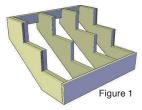
- 1. Mount the fascia on the stringers and first riser.
 - Follow same guidelines listed in the Fascia/Skirt Board section (fig. 1)



Attach in sequence the trim, decking, then next riser

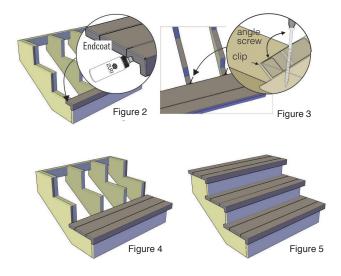
- Miter and pre-assemble the trims and decking for each step (fig 2).
- Install the assembled trims as directed in the trims section.
- **TIP:** Remove screw from clip and re-drive at 45° angle to avoid driver interference with stringer (fig 3).
- Face-screw the back of each final tread board within 3/4" of the ripped edge (fig 4). Screws will be covered by risers.





Option 3

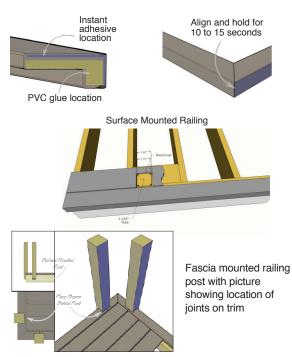
- 1. Mount the fascia on the stringers and first riser.
 - Follow same guidelines listed in the Fascia/Skirt Board section (fig. 1)
- 2. Attach in sequence the trim, decking then next riser
 - Cut and coat ends of trim with Zuri endcoat (fig 2).
 - Install the trims as directed in the trims section
 - **TIP:** Remove screw from clip and re-drive at 45° angle to avoid driver interference with stringer (fig 3).
 - Face-screw the back of each final tread board within 3/4" of the ripped edge (fig 4). Screws will be covered by risers.



Tips & Techniques

Gluing Zuri[®]- Zuri's PVC substrate can be chemically welded with PVC glue. This bond is recommended on all miters and filler board applications. Best practices are:

- Use PVC cement in conjunction with 2P-10 instant adhesive (locations identified below) to speed the process and eliminate the need for clamping
 - Oatey Heavy Duty Clear PVC Cement
 - 2P-10 instant adhesive (available at www.fastcap. com)
- Pre-glue joint before installing
- Routing the ends of the Zuri boards is acceptable with a router no larger than 3/16"



Materials Checklist



Cap-tor Screws



2P-10 Activator and Glue



Heavy-Duty PVC Cement



End Coat Paint Applicator



Zuri Grooved Decking Clips



Hidden fasteners

Zuri is different from conventional wood, composite, and other PVC decking products. The structure of Zuri requires face screws be kept to a minimum. All face screws on the horizontal plane ought to be placed in an inconspicuous location, namely against a structure, under trimmed areas, under handrails, etc. Face screws on the vertical plane, such as Zuri Trims, risers of fascia applications are acceptable. We have approved the following hidden fastening systems for installing Zuri:

Camo[™] Marksman Pro Gap size of 3/16"

Please follow the Camo[™] installation instructions provided with the system. This method is a Toe-Screw application with the following attributes:

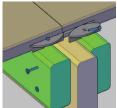
- · Least expensive
- Fast
- Top performer in respect to restricting expansion/contraction movement
- · Product design is very conducive to board replacement



EB-TY™ Original Series Hidden Deck fastening system – Gap size of 3/32"

This system requires a plate joiner or router to cut a slot in Zuri decking to accommodate a "biscuit" shaped retainer that is screwed through the board into the framing. EB-TY will provide complete instructions with product, but an overview technique and key features are:

- Smallest gap size available
- Performed well in respect to restricting expansion/ contraction movement
- Requires 1 fastener per sq/ft of decking



Headcote Cap-Tor - #10 x 2-1/2" Screws

Use to face-screw Zuri Trim. NOTE: 305 stainless for inland builds and 316 stainless for seaside or brackish water applications.

Approved for use with ACQ treated lumber

Available in color matched coating

Weathered Gray: Tan Gray #31

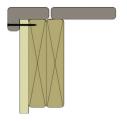
Pecan: Cedar #81

Walnut: Brown #34

Brazilia: Mahogany #82

Chestnut: Buckskin #63

Hickory: Java #73





Installation progression

Zuri must be installed in the following sequence. This section will be divided in order of installation:

- Fascia / Skirt Board Main body of build (DO NOT Clad stair risers at this point)
- Zuri Trim
- Main Body decking
- Steps and Landings

Step 1 – Fascia / Skirt board

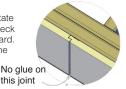
All fascias should be installed prior to decking. We suggest using Zuri Fascia with Headcote - See attachment. Full installation instructions are available at

www.royalbuildingproducts.com.

A few application specific guidelines are:

- · Fascia must fully cover framing, as it will support the Zuri Trim
- All miter joints are to be glued PVC cement
- Expansion joints are required on runs exceeding 20' shiplap joint is recommended
- Required Fastening schedule for PVC Trim
- Boards 6" wide or less 2 fasteners, 16" on center
- Boards 8"to 10" wide 3 fasteners, 16" on center
- Boards 12" wide or more 4 to 5 fasteners, 16" on center
- To help ensure grain pattern variation, rotate Zuri Fascia boards. Be sure to always check the grain pattern before fastening the board. For best results, make sure you square the board by trimming the end.

Screw position no less than 1/2" and no greater than 2" from edge of board Shiplap Joint



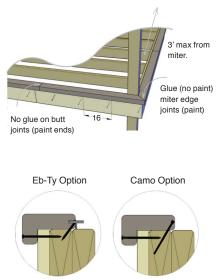
Paint with color matched Zuri end coat when using Zuri Fascia



Step 2 – Zuri Trim

Install Zuri trim around the entire perimeter of the deck body. Do not trim steps at this time. The trim must be installed with a combination of face screws and one of the approved fastening systems. Please use the following techniques:

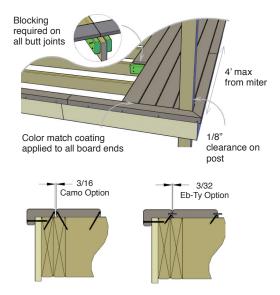
- Maintain straight lines and square corners as this will be starter for decking.
 - When laying out the Zuri trim, snap a chalk line 2 3/8" to 2 ¼" back from the fascia. This provides a space between the trim and the fascia allowing for expansion/contraction and helps hide any framing inconsistencies.
 - Use framing square, 3-4-5 method, or cross measure to maintain square.
- Secure face with Headcote Cap-Tor #10 x 2-1/2" Screws. (see options below - option 1 or 2 preferred. Option 3 for use with square trim board.)
- Use prefabbed corners #9979 for mitered corner joints OR field fabricate corner miters. All miter joints must be glued (PVC cement).
- All miter joints must have an expansion joint within 3' to allow for movement.



Step 3 – Zuri Main Body Decking

Install Zuri deck boards with one of the two approved fastening methods. Work from the trim side or highest traffic area toward the structure or least traffic area. Remember to monitor the grain patterns to guarantee grain variation. Feature boards, transition boards and/or inlay work should be installed first, and then the main body. This allows for more precise cutting.

- · Follow the selected fastening systems instructions
 - Camo provides 3/16" gap spacing
 - Eb-Ty provides 3/32" & 1/8" gap spacing



Step 4 – Step Options

Zuri step installation is a bit different than conventional methods and requires the same attention to the installation sequence as the main deck. The following progression will be the order of install and each process must be completed before moving next. This section only covers the Decking/ Fascia applications and presumes framing is complete.

Option 1

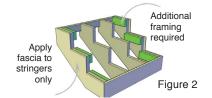
1. Mount the fascia on the stringers and first riser (fig. 2).



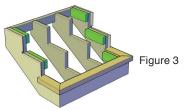
 NOTE: Notch the stringer to accommodate the trims (fig. 1) Fi

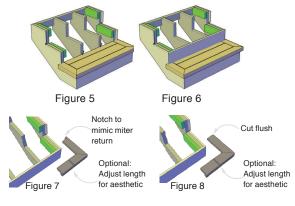


2. Attach in sequence the trim, decking, then next riser



- Cut and pre-assemble the trims for each step.
 *For Pre-Fab Corners, see Figures 7 and 8.
- Install the assembled trims as directed in the trims section (fig 3)
- Then install the deck boards starting from the trim and working back toward the stringers.
- Face-screw the back of each final tread board within 3/4" of the ripped edge (fig. 4). Screws will be covered by risers.



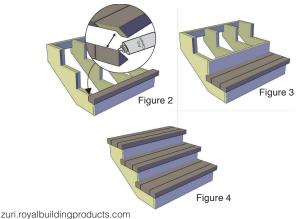


Option 2

1. Mount the fascia on the stringers and first riser

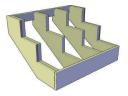


- Follow same guidelines listed in the Fascia/Skirt Board section (fig. 1)
- 2. Attach in sequence the trim, decking then next riser
 - Miter and pre-assemble the trims and decking for each step (fig. 2).
 - · Install the assembled trims as directed in the trims section
 - Then install the deck boards starting from the trim and working back toward the stringers.
 - Face-screw the back of each final tread board within 3/4" of the ripped edge (fig. 4). Screws will be covered by risers

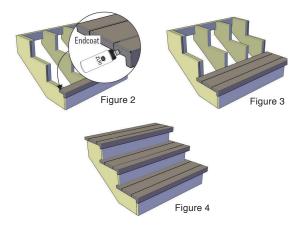


Option 3

- 1. Mount the fascia on the stringers and first riser
 - Follow same guidelines listed in the Fascia/Skirt Board section (fig. 1)



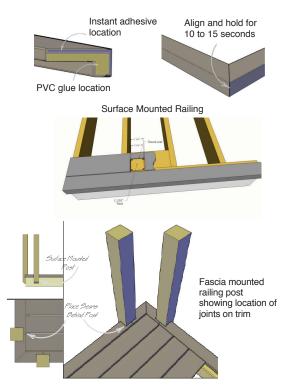
- 2. Attach in sequence the trim, decking, then next riser
 - Cut and coat ends of trim with Zuri endcoat (fig. 2).
 - Install the trims as directed in the trims section
 - Then install the deck boards starting from the trim and working back toward the stringers.
 - Face-screw the back of each final tread board within 3/4" of the ripped edge (fig. 4). Screws will be covered by risers



Tips & Techniques

Gluing Zuri[®]- Zuri's PVC substrate can be chemically welded with PVC glue. This bond is recommended on all miters and filler board applications. Best practices are:

- Use PVC cement in conjunction with 2P-10 instant adhesive (locations identified below) to speed the process and eliminate the need for clamping
 - Oatey Heavy Duty Clear PVC Cement
 - 2P-10 instant adhesive (available at www.fastcap.com)
- Pre-glue joint before installing
- Routing the ends of the Zuri boards is acceptable with a router no larger than 3/16"



Materials Checklist



Cap-tor Screws



2P-10 Activator and Glue



Heavy-Duty PVC Cement



End Coat Paint Applicator



 Camo Tools - Marksman Pro for deck boards and Camo Marksman NB for trimboards.
 Please note: Do not use the X-1.
 It places the holes too high.



Congratulations on your informed decision to install Zuri® Premium Decking by Royal. Your Zuri decking requires very little maintenance, but does require occasional attention to ensure a long, problem-free product life. The following pages contain important information on maintaining the beauty of your Zuri® Premium Decking



Maintaining the Beauty

Stains

The decking is highly resistant to stains from ketchup, mustard, sodas, punch, salad oil, barbeque sauce, or other food products commonly found in a decking environment. When these stains or spills do occur, they should be cleaned quickly, within one week of the spill, using nothing more than a mild detergent and water. Left to dry for extended periods of time, these types of stains may become more difficult to remove. Should this occur, using mild detergent, water, and scrubbing with a terry cloth rag, sponge, or soft bristle brush should be sufficient to remove most stains. Stubborn stains may be removed by pressure washing with a maximum of 2700 psi and a 25 degree or greater cone nozzle. Excessive pressure with aggressive cone nozzles could cause damage to the board and void the warranty.

Products that have been tested and found safe to use on Zuri decking include:

- Soap and water
- Formula 409 Cleaner
- Spic and Span
- Mr. Clean Cleaner
- Mr. Clean Magic Eraser
- Soft Scrub Cleaner

- Glass Plus Cleaner
- Liquid Comet Cleaner
- Clorox Bleach
- Sodium Hydroxide
- Deck Max Cleaner
- Deck Max Revitalizer



Ice In Winter

Calcium chloride may be used to prevent or remove ice. Salt based products can leave behind a white deposit that can be easily cleaned with water. Use of steel implements such as shovels, rakes, or picks can damage the deck and should never be used to remove ice, debris, or other materials from your deck. Such use of steel implements will void the warranty.

Insect Repellent and Sunscreen

Some insect repellent and sun screen products have been found to leave a hard, clear, glossy coating similar to lacquer, paint, or polyurethane when allowed to dry over an extended period of time. This clear coating can become difficult to remove if allowed to dry. If feasible, please apply these products away from your deck area or place a towel or appropriate covering when applying as inadvertent overspray may damage the deck finish. If repellent or sunscreen does come in contact with the deck, clean immediately to reduce the risk of adhesion to the deck surface. Magic Eraser has been tested and works well to remove residue if used early (less than 24 hours).

Fasteners and Deck Framing

Fasteners and the framing structure should be inspected, at a minimum, semi-annually to ensure the boards are properly secured. If fasteners or the structure are found to be defective or damaged, repairs should be made immediately. Failure to inspect and maintain the framing structure and fasteners will void the warranty.









Royal[®] Building Products exists for one reason: to push the limits of what every type of exterior can be. We strive for best-in-class manufacturing and industry-leading innovation. What drives us? Every homeowner who demands exteriors that add value, perform impeccably, look amazing and make their lives easier. Our goal is to bring more products, more styles, more technology, more design insight and more sustainable solutions to the attention of everyone who cares about creating the best exterior possible. Build Royal™





CELECT® CELLULAR COMPOSITE SIDING











SIDING







MACYAL Building Products



Raise your decking profile with Royal Building Products.

RoyalBuildingProducts.com/Zuri 1.855.ROYAL85

For product warranty details, please visit RBPWarranty.com © 2020 Royal Building Products