

ETERNAL LIMESTONES



live inspired





LIFETIME ENDURANCE

Natural limestone has endured through the ages as a popular building material in locales across the world. Now the beauty and extensive color variations found in the original is recreated in ETERNAL LIMESTONES, Ragno USA's newest Color Body porcelain. Next-level digital print technology imitates the distinctive intricacies of Crema Europa, Jura and Lagos Blue limestones with such a high level of accuracy that it is difficult to distinguish the natural stone from the porcelain tile.

LIMITLESS POSSIBILITIES

Clean, rectified edges accommodate narrower grout joints which give the illusion of an uninterrupted honed surface with few visual breaks. Natural limestone is characterized by pits, fossils and dry seams that require filling (and potentially, re-filling, over time); low abrasion resistance ratings; and rigorous, often professional, maintenance routines. Conversely, ETERNAL LIMESTONES has a Class 4 rating and an ADA-recognized coefficient of friction of > 0.60 , cove base trims and minimal maintenance requirements, making it ideal for not only residential but also commercial floor and wall spaces.









EXPANDING DESIGN

Creative customization is easy with six large-format square and plank sizes plus four unique mosaic options. All these choices – colors, sizes, mosaics – free the imagination to craft personal design statements with the feel of authentic limestone.

ETERNAL LIMESTONES

COLOR BODY PORCELAIN TILE

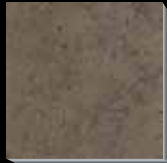
R Rectified Tile

3D 3d Printing Technique

- 20" x 20" Rectified
- 18" x 36" Rectified
- 12" x 24" Rectified
- 13" x 13" Rectified
- 6" x 24" Rectified
- 3¹/₄" x 6¹/₂" Rectified



AL26 Limestone AN
20"x20" Rectified



AL29 Limestone AN
13"x13" Rectified



AL2F Limestone AN
3¹/₄"x6¹/₂" Rectified



AL25 Limestone BI
20"x20" Rectified



AL28 Limestone BI
13"x13" Rectified



AL2E Limestone BI
3¹/₄"x6¹/₂" Rectified



AL7S Limestone AN
18"x36" Rectified



AL23 Limestone AN
12"x24" Rectified



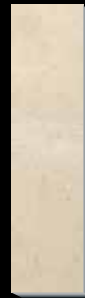
AL2C Limestone AN
6"x24" Rectified



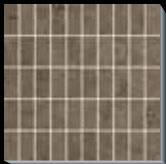
AL7R Limestone BI
18"x36" Rectified



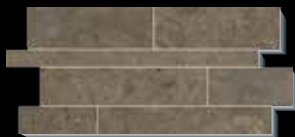
AL22 Limestone BI
12"x24" Rectified



AL2B Limestone BI
6"x24" Rectified



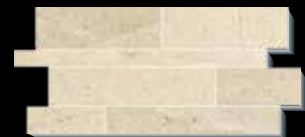
AL2W Limestone AN
Mosaic 1¹/₄"x2¹/₂"
13"x13"



AL2Z Limestone AN
Strip Mosaic
12"x24"



AL2V Limestone BI
Mosaic 1¹/₄"x2¹/₂"
13"x13"



AL2Y Limestone BI
Strip Mosaic
12"x24"

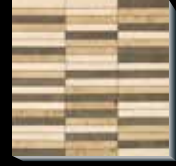
20" x 20"	Rectified
18" x 36"	Rectified
12" x 24"	Rectified
13" x 13"	Rectified
6" x 24"	Rectified
3 1/4" x 6 1/2"	Rectified



DECORATIVE OPTIONS



AL36 Grecian
Metallic Deco
2"x13"



AL33 Limestone MC
Mixed Mosaic
13"x13"



AL27 Limestone BG
20"x20" Rectified



AL2A Limestone BG
13"x13" Rectified



AL2G Limestone BG
3 1/4"x6 1/2" Rectified



AL7T Limestone BG
18"x36" Rectified



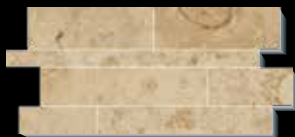
AL24 Limestone BG
12"x24" Rectified



AL2D Limestone BG
6"x24" Rectified



AL2X Limestone BG
Mosaic 1 1/4"x2 1/2"
13"x13"



AL32 Limestone BG
Strip Mosaic
12"x24"

TRIMS



AL2J Limestone AN Bullnose
AL2K Limestone BG Bullnose
AL2H Limestone BI Bullnose
3"x13"



AL2M Limestone AN Cove Base
AL2N Limestone BG Cove Base
AL2L Limestone BI Cove Base
6"x13"



AL2T Limestone AN Cove Base Out Angle
AL2U Limestone BG Cove Base Out Angle
AL2S Limestone BI Cove Base Out Angle
1"x6"



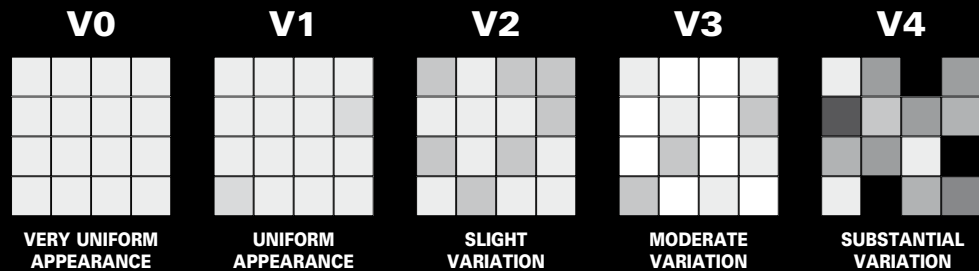
AL2O Limestone AN Cove Base In Angle
AL2R Limestone BG Cove Base In Angle
AL2P Limestone BI Cove Base In Angle
1"x6"

SHADE VARIATIONS

The color and shade of all tiles vary to some degree. This variance can be from piece to piece and can also occur from production run to production run.

American National Standard Specifications for Ceramic Tile (ANSI) has implemented a guide that rates ceramic tile on a five-point scale and ranges from V0 through V4.

Instituting the ANSI's color shade variation guidelines you will reduce customer complaints and sell the unique and individual beauty of each ceramic tile.



V0 Very Uniform Appearance

Pieces of the same shade value are very uniform and smooth in texture.

V1 Uniform Appearance

Differences among pieces from the same production run are minimal.

V2 Slight Variation

Clearly Distinguishable differences in texture and/or pattern within similar colors.

V3 Moderate Variation

While the colors and/or texture present on a single piece of tile will be indicative of the colors and/or texture to be expected on the other tiles, the amount of colors and/or texture on each piece may vary significantly. It is recommended that the range be viewed before selection.

V4 Substantial Variation

Random color and/or texture differences from tile to tile, so that one tile may have totally different colors and/or texture from that on other tiles. Thus, the final installation will be unique. It is recommended that the range be viewed before selection.

SHADE VARIATION AND APPLICATIONS

V3	Residential	Commercial	Industrial	
 <p>MODERATE VARIATION</p>	Floor	•	•	
	Wall	•	•	•
	Countertop	•	•	•
	Pool	•	•	•

Water, oil, grease, or other fluids create slippery conditions. Floors with exposure to these conditions require extra caution in product selection and proper maintenance.

CARE & MAINTENANCE

Eternal Limestones is a stain-resistant porcelain tile. Routine maintenance will keep your tile looking new for years to come.

Ragno USA's products are typically easy to install and maintain using the following general guidelines:

- Choose tile from same dye lot and caliber whenever possible
- Select tile alternately from several boxes and rotate when installing
- Follow industry-accepted installation practices as detailed by Tile Council of America "Handbook for Ceramic Tile Installation" or those recommended by the Ceramic Tile Institute of America
- Remove all grout residue promptly after application; neither acid cleaning nor sealing is recommended
- Clean regularly with clear water and/or a neutral (soapless) cleaner, wipe dry to lessen slippery conditions

TECHNICAL SPECIFICATIONS

DESCRIPTION	ANSI STANDARD	RESULT	ASTM TEST METHOD	
Water Absorption	≤ 0.50%	≤ 0.50%	C373	
Frost Resistance	As Reported	Resistant	C1026	
Scratch Resistance	MOHS 1-10	7	MOHS SCALE	
Breaking Strength	20" x 20"	≥ 250 lbf.	≥ 700 lbf.	C648
	12" x 24"	≥ 250 lbf.	≥ 806 lbf.	C648
	13" x 13"	≥ 250 lbf.	≥ 535 lbf.	C648
Facial Dimension	- 3.0 % ≤ Nominal ≤ 2.0 %	Within Standard	C499	
Thickness	≤ 0.04 in (1.02 mm max)	Within Standard	C499	
Wedging (Squareness)	+/- 0.25 % or +/- 0.8 mm**	Within Standard	C502	
Warpage (Flatness)	+/- 0.40 % or +/- 1.3 mm**	Within Standard	C485	
Abrasion Resistance	Class 0 - Class V	Class IV	C1027	
DCOF - Dynamic Coefficient of Friction (Wet Areas Only) [†]	As Reported	Minimum 0.42	DCOF AcuTest SM *	
SCOF-Static Coefficient of Friction (Wet)	As Reported	0.60 ≤ SCOF < 0.70	C1028	
SCOF-Static Coefficient of Friction (Dry)	As Reported	0.70 ≤ SCOF < 0.80	C1028	
Chemical Resistance	Class A - Class E	Class A	C650	
Stain Resistance	Class A - Class E	Class A	C1378	

[†]Dynamic Coefficient of Friction (DCOF) - Water, oil, grease or other fluids create slippery conditions. When installing floors in areas with exposure to these conditions, a minimum D.C.O.F. value of 0.42 is required. Additionally, extra caution is required with regards to product selection and proper maintenance. Visit www.tcnatile.com for complete information regarding the DCOF Acutest test method and values. ^{*}DCOF AcuTest is the industry designation for the test procedure contained in ANSI A137.1 Section 9.6, which has been extensively researched, allows for in-situ field measurements, and is in use at tile manufacturing facilities. It was so named to distinguish it from other DCOF measurements using different instruments and/or protocols.

** Whichever is less

PACKAGING

	SIZE	THICKNESS	BOX			PALLET		
			PCS	SQ FT	LBS	BOXES	SQ FT	LBS
Floor Tile	3 ¹ / ₄ " x 6 ¹ / ₂ " R	5/16"	72	10.22	42.00	51	521.22	2142.00
Floor Tile	13" x 13" R	5/16"	13	15.11	58.00	44	664.84	2552.00
Floor Tile	6" x 24" R	7/16"	10	9.43	55.00	40	377.20	2200.00
Floor Tile	12" x 24" R	7/16"	05	9.51	55.00	40	380.40	2200.00
Floor Tile	20" x 20" R	7/16"	06	15.96	79.00	24	383.04	1893.00
Floor Tile	18" x 36" R	3/8"	03	12.90	63.00	33	425.70	2134.00
Mosaic 1 ¹ / ₄ " x 2 ¹ / ₂ "	13" x 13"	Compatible	10		39.00			
Mosaic Mix	13" x 13"	Compatible	10		39.00			
Strip Mosaic	12" x 24"	Compatible	04		41.00			
Metallic Deco	2" x 13"	Compatible	06		3.00			
Cove Base	6" x 13"	Compatible	12		26.00			
Cove Base In Angle	1" x 6"	Compatible	06		2.00			
Cove Base Out Angle	1" x 6"	Compatible	06		2.00			
Bullnose*	3" x 13"	Compatible	20		21.00			

* Trim is available in all colors and made to complement Floor Tile.



Floor Tile



Wall Tile



Modular Tile



3d Printing Technique



Rectified Tile



Decorative Tile



Trim Available



Suitable for Outdoors



Moderate Variation



Frost Resistant



Abrasion Resistance



D.C.O.F. (Wet Areas) (Minimum 0.42)



S.C.O.F. (Wet) (Valid Through 12-31-2013)



S.C.O.F. (Dry) (Valid Through 12-31-2013)



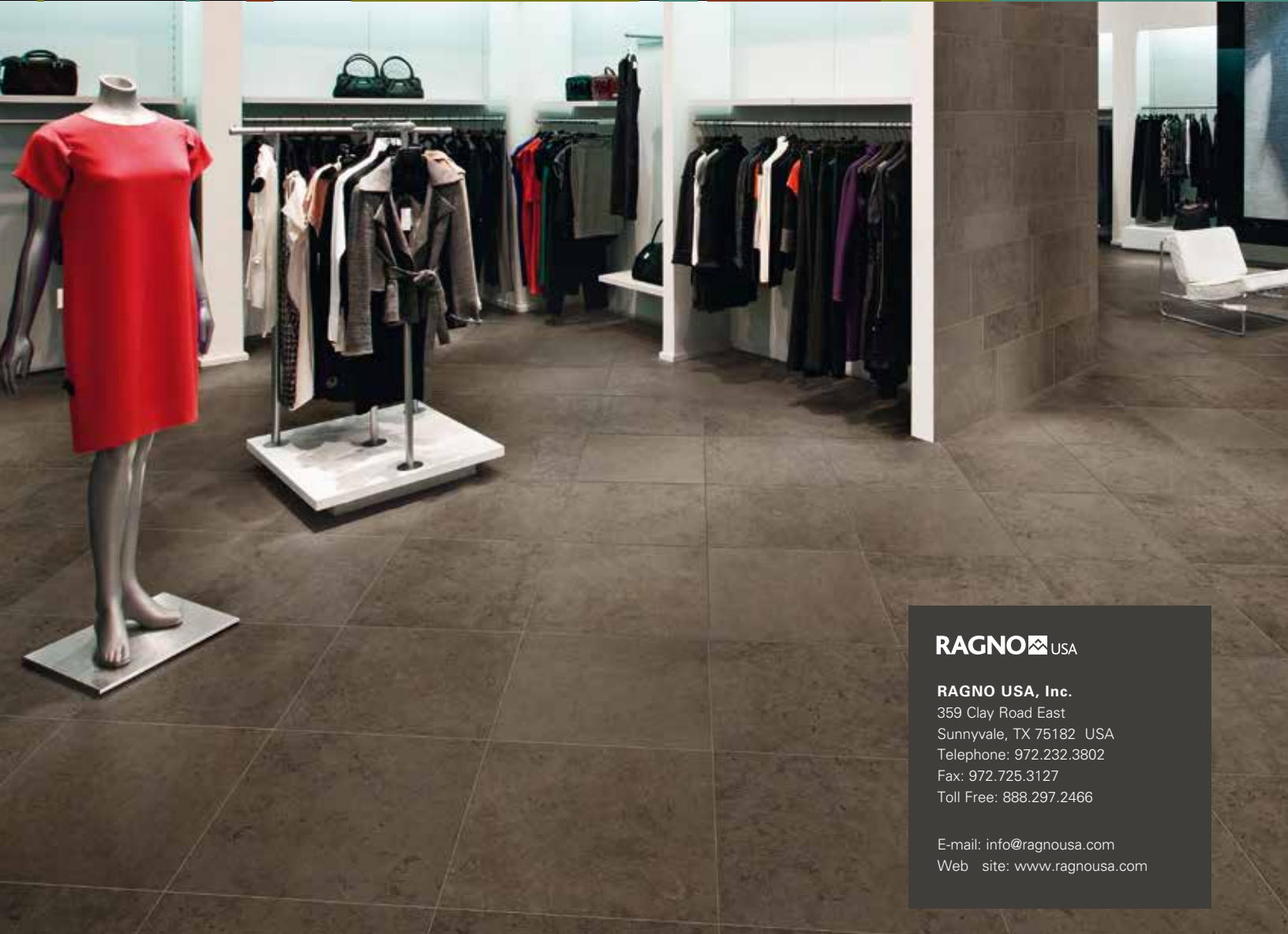
21% Minimum Pre-Consumer Recycled Content



No VOC



Contributes to LEED Credits



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