

Livorno

porcelain stoneware



CANCOS
TILE & STONE

EXTRA





ELELIEX1224
ELELIEX1224L



M+P | 12x24 |

ELELIEX2448L



P | 24x48 |

ELELIEX312L



P | 3x12 |

ELELIEXHEX4L



P | 4x4 hex |

ELELIEXMOS22



M | 2x2 mosaic |

ELELIEXWEAVEL



P | basketweave |

ELELIEXBN324
ELELIEXBN324L



M+P | 3x24 bullnose |

GOLD





ELELIGO1224
ELELIGO1224L



M+P | 12x24 |

ELELIGO2448L



P | 24x48 |

ELELIGO312L



P | 3x12 |

ELELIGOHEX4L



P | 4x4 hex |

ELELIGOMOS22



M | 2x2 mosaic |

ELELIGOWEAVEL



P | basketweave |

ELELIGOBN324
ELELIGOBN324L



M+P | 3x24 bullnose |

SILVER





ELELISI1224
ELELISI1224L



M+P | 12x24 |

ELELISI2448L



P | 24x48 |

ELELISI312L



P | 3x12 |

ELELISIH4L



P | 4x4 hex |

ELELISIMOS22



M | 2x2 mosaic |

ELELISIWEAVEL



P | basketweave |

ELELISIBN324
ELELISIBN324L



M+P | 3x24 bullnose |

VENATINO





ELELIVE1224
ELELIVE1224L



M+P | 12x24 |

ELELIVE2448L



P | 24x48 |

ELELIVE312L



P | 3x12 |

ELELIVEHEX4L



P | 4x4 hex |

ELELIVEMOS22



M | 2x2 mosaic |

ELELIVEWEAVEL



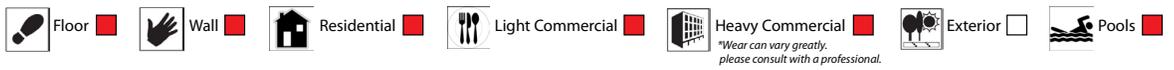
P | basketweave |

ELELIVEBN324
ELELIVEBN324L

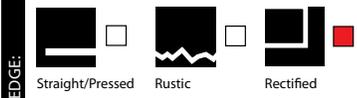
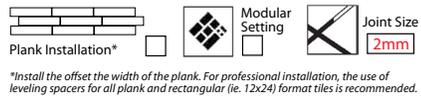


M+P | 3x24 bullnose |

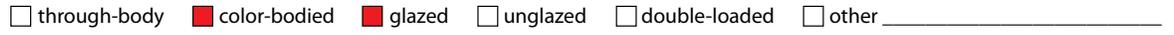
Suggested Applications



Installation Suggestions



Porcelain Type



Shade Variation



Slip Resistance

DCOF	Values	Applications
0.44	0.42	Recommended Standard DCOF value for wet/dry commercial flooring
	0.65	Recommended Standard DCOF value for ADA ramps

ASTM C-1028
ANSI A137.1
DIN 51097/51130

DIN 51130 *R9: Industry Standard/ADA Requirements **R11: Recommended For Exteriors

<input checked="" type="checkbox"/> R9* (3-10°)	<input type="checkbox"/> R10 (10-19°)	<input type="checkbox"/> R11** (19-27°)
<input type="checkbox"/> R12 (27-35°)	<input type="checkbox"/> R13 (>35°)	

DIN 51097

Class	Typical Applications	Critical Angle
<input type="checkbox"/> A	Barefoot, but mainly dry aisles and walkways, dry changing areas	≥12°
<input type="checkbox"/> B	Shower rooms, pool surrounds, wet changing areas, disinfectant spray areas (plus all Class A areas)	≥18°
<input type="checkbox"/> C	Areas constantly under water, e.g. steps into pools, foot baths, included pool surrounds, jacuzzis (plus all Class A&B areas)	≥24°

Scratch Resistance

MOH'S SCALE
UNI EN ISO
10545.6

MINERAL

- Talc (Talc)
 - Gypsum (Fingernail)
 - Calcite (Penny)
 - Flourite (Some Marbles)
 - Apatite (Knife Blade)
 - Microline (Glass, Glazed Tile)
 - Quartz (Unglazed Porcelain)
 - Topaz (Granite)
 - Corundum (Ruby)
 - Diamond (Diamond)
- Industry standard ≤175mm²

Wear Resistance

PEI RATING
UNI EN ISO
10545.7

- Class 1: Walls only
 - Class 2: Residential floors w/minimal abrasive traffic
 - Class 3: Residential interiors/light commercial traffic
 - Class 4: Medium commercial applications
 - Class 5: All commercial applications/heavy traffic
- *Wear can vary greatly. please consult with a professional.

Stain Resistance

ASTM C1378-04
UNI EN ISO
10545.14

- 5: Removed after 5 minutes (hot water running)
- 4: Removed by manual cleaning (weak detergent)
- 3: Removed by mechanical cleaning (strong detergent)
- 2: Removed by immersion (24 hrs in suitable solvent)
- 1: Stain not removed

3-5

Water Absorption

ASTM C-373
UNI EN ISO
10545.3

<input checked="" type="checkbox"/> Absorbs 0-.5%	<input type="checkbox"/> Absorbs .5-3%	<input type="checkbox"/> Absorbs 3-7%	<input type="checkbox"/> Absorbs 7% +
Impervious Interior/Exterior Frost Resistant	Vitreous Interior/Exterior Frost Resistant	Semi-Vitreous Indoor Use Only	Non-Vitreous Indoor Use Only

Breaking Strength

ASTM C648
UNI EN ISO
10545.4

>45 n/mm²



Industry standard should be greater than
250 lbs
or
50 N/MM2

Facial Dimension

ASTM c499-09
UNI EN ISO
10545.02

	Standard	Tolerance	Result
flatness	±5mm	±.5%	PASS
thickness	±6mm	±.5%	PASS
straightness	±4.5mm	±.5%	PASS
squareness	±5.4mm	±.6%	PASS
sides L/W	±1.1mm ±4.5mm	±.5%	PASS

Chemical Resistance

ASTM C650
UNI EN ISO
10545.13



Allowances for:

	result
Acid	PASS
Bases	PASS
Chemicals	PASS

Leed Information



REQUIREMENTS FOR COMMERCIAL INTERIORS/NEW CONSTRUCTION

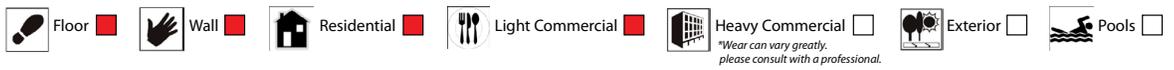
Sustainable Sites	1 Point
Site selection SS CREDIT 1 Heat Island Effect-non roof Material with a solar reflectant index of at least 29.	<input checked="" type="checkbox"/>
Energy & Atmosphere EA CREDIT 4 Green Power: Products that optimize energy performance for floors and walls using thermal conductivity. BTU-FT	<input checked="" type="checkbox"/>
Indoor Environmental Quality Low-Emitting Materials-Flooring Systems IEQ CREDIT 3.1-7 Green Cleaning: Reducing occupants exposure to hazardous cleaning chemicals.	<input type="checkbox"/>
IEQ CREDIT 4.1 Low Emitting Adhesives: Products less than 65 G/L VOC	<input type="checkbox"/>
IEQ CREDIT 4.3 Low Emitting Materials: Flooring systems.	<input checked="" type="checkbox"/>

Materials & Resources	1 Point	2 Points
M&R CREDIT 2 Construction Waste Management: Recycling salvaged construction waste in to new reusable materials.	50% <input type="checkbox"/>	70% <input checked="" type="checkbox"/>
M&R CREDIT 4.1-4.2 Recycled Content: The sum of post consumer plus 1/2 of the pre consumer reps at least 10-20% of total value of materials.	10% <input type="checkbox"/>	20% <input checked="" type="checkbox"/>
M&R CREDIT 5 Regional Materials: Materials manufactured within 500 miles of the project site.	10% <input type="checkbox"/>	20% <input type="checkbox"/>
Innovation in Design	1-5 Points	
ID CREDIT 1 Innovation in Design Measurable exemplary environmental performance.	<input checked="" type="checkbox"/>	

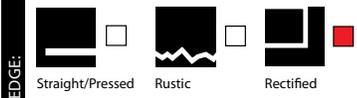
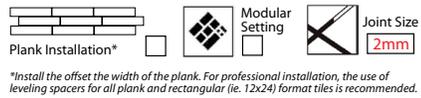
Type: **Porcelain Stoneware (Matte Finish)**
Product Line: **LIVORNO**

The marketing name for this product is property of Caccos Tile & Stone. This same product may be marketed under different names.

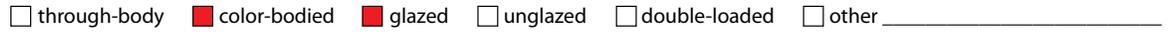
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UNI EN ISO
10545.4



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Type:
Porcelain Stoneware
(Polished Finish)

Product Line:
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TILE & STONE