

LEEDS

Cityscape Architectural Products Porcelain Pavers are produced in the U.S., the manufacturing plants are located in Tennessee.

The factory is member of the U.S. Green Building Council, which is an organization that promotes buildings that are environmentally responsible, profitable, and healthy places to live and work.

In accordance with LEED Rating System and UNI EN ISO 14021:2016 Environmental labels and declarations – (Type II environmental labelling), declares that:

MR – Material & Resources Building Product Disclosure and Optimization	
Recycled Content (% Pre-consumer)	Cityscape 2cm Porcelain Pavers are produced with 35% of pre-consumer recycled materials
Regional Materials (% Respect factory)	These Credits are applicable for buildings constructed within 500 miles (804.5 km) from the factory located in Clarksville, TN. 49% of all Cityscape 2m porcelain paver raw materials are quarried in the 500 miles radius. Therefore, Cityscape 2cm Porcelain Pavers contribute for 49% of their value to the LEED Credits of this Section.
Sustainability Report	Available self-declared Corporate Sustainability Report (CSR) conform to Global Reporting initiative (GRI) Sustainability Report
Environmental Product Declaration	Available industry-wide Environmental Product Declaration (EPD) conform to 18014025
Material Ingredients	Available Health Product Declaration (HPD) in compliance with the Health Product Declaration open Standard
Waste Management	All packaging material are fully recyclable and reusable. The material coming from the demolition of the tiles is “inert” material that can be recycled

EQ – Indoor Environmental Quality	
Low Emitting Materials	No traces of VOC (Volatile Organic Compounds) are present in Cityscape 2cm porcelain pavers (as certified by the external labs in charge of the tests).
SS – Sustainable Sites	
Heat Island Effect	The great majority of Cityscape 2cm porcelain pavers do not contribute to change the energy balance of the environments where installed. They do not produce any Urban Heat Island Effect, thanks to its very good physical properties Solar Reflectance Index SRI ≥ 32:
EA – Energy & Atmosphere	
Energy Performance (Conductivity (y))	1.0 – 1.3 W/mK
IN - Innovation	
<p>Cityscape 2cm Porcelain Pavers are produced in manufacturing plants which have got the prestigious ecological mark ECOLABEL (EU Regulation 2002/272/EC). These plants have the environmental management systems compliant to ISO 14001:2004 and EMAS (European Council Regulation 761/2001). These environmental standards guarantee excellence in terms of:</p> <ul style="list-style-type: none"> • Safeguard of the environment. • Continuous improvement of the environmental performance of Cityscape 2cm Porcelain Pavers and manufacturing sites. • Healthcare of Kronos Usa workers and customers. 	

WHAT IS THE SOLAR REFLECTANCE INDEX (SRI)?

In October 2005, the USGBC released new guidelines for LEED credits. The New Construction Version 2.2 revised the values required for mitigating the heat island effect. The guidelines are now based on the Solar Reflectance Index (SRI) of specified materials as calculated by ASTM E 1980.

EMITTANCE:

The emittance of a material refers to its ability to release absorbed heat. Scientists use a number between 0 and 1 to express emittance. With the exception of metals, most construction materials have emittances above 0.85.

SOLAR REFLECTANCE:

Also known as albedo, is the ratio of the amount of solar radiation reflected from a surface to the total amount reaching that surface (which includes visible and ultraviolet light and infrared radiation).

SOLAR REFLECTANCE INDEX (SRI):

SRI is a value that incorporates both solar reflectance and emittance in a single value to represent a material’s temperature in the sun. SRI quantifies how hot a surface would get relative to standard black and standard white surfaces.

It is calculated using equations based on previously measured values of solar reflectance and emittance as laid out in the American Society for Testing and Materials Standard E 1980.

WHAT SRI VALUES DO BUILDING MATERIALS NEED FOR LEED?

As shown in Table 1, the minimum SRI for cool roofing has increased in the newer LEED v4. In the earlier LEED 2009 requirements, cool roofing did not consider age. SRI as an option for qualification.

Projects seeking LEED v4 have the option of qualifying using either initial SRI or by obtaining the 3-year aged SRI value.

MINIMUM SOLAR REFLECTANCE FOR HARDSCAPE IN LEED 2009 VS LEED V4			
	Metric	Initial	3-Year Aged SRI
LEED 2009	Solar Reflectance Index	29	-
LEED V4	Solar Reflectance	0.33	0.28

STONE COLLECTION	SRI Value	LEED Credit	R AVG	EM AVG
Pescara Series – Linen	80	Passed	0.668	0.909
Pescara Series – Cotton Creama	77	Passed	0.638	0.920
Pescara Series – Rustic Almond	62	Passed	0.525	0.925
Pompeii Series – Graphite	72	Passed	0.612	0.890
Pompeii Series – Dusty Iron	68	Passed	0.600	0.915
Pompeii Series – Desert Sand	55	Passed	0.505	0.880
Cityline Travertine – Pacific Pearl	67	Passed	0.549	0.960
Cityline Travertine – Golden Oat	62	Passed	0.520	0.920
PA Bluestone – Full Color	34	Passed	0.318	0.810
PA Bluestone – Blue Select	42	Passed	0.370	0.920
Mountain Series – Fossil	44	Passed	0.392	0.910
Mountain Series – Summer Wheat	55	Passed	0.488	0.840
Mountain Series – Rustic Wood	41	Passed	0.372	0.910
Storm Series – Mist	81	Passed	0.661	0.910
Storm Series – Dust	48	Passed	0.418	0.910
Storm Series – Grey Cloud	44	Passed	0.405	0.860
Storm Series – Smoke	62	Passed	0.524	0.900
Island Stone – Papaya	58	Passed	0.504	0.860
Island Stone – Jade	18	--	0.314	0.950
Island Stone – Blond Mocha	37	Passed	0.352	0.870

RUST COLLECTION	SRI Value	LEED Credit	R AVG	EM AVG
Rust	47	Passed	0.419	0.880

CONCRETE COLLECTION	SRI Value	LEED Credit	R AVG	EM AVG
Philadelphia Series – Ivory	78	Passed	0.640	0.910
Philadelphia Series – Platinum	56	Passed	0.459	0.900
Philadelphia Series – Midnight Grey	35	Passed	0.310	0.950
Philadelphia Series – Khaki Fawn	74	Passed	0.608	0.930
Philadelphia Series – Burly Brass	42	Passed	0.383	0.850
Philadelphia Series – Peru	41	Passed	0.370	0.890
Terrazzo Premier – Bisque	69	Passed	0.576	0.900
Terrazzo Premier – Clay	58	Passed	0.500	0.880
Terrazzo Premier – Truffle	30	Passed	0.297	0.870
Terrazzo Premier – Atrium	84	Passed	0.682	0.892
Terrazzo Premier – Polar	72	Passed	0.600	0.890
Mineral Series – Chiffon Grey	70	Passed	0.600	0.900
Mineral Series – Sepia Powder	76	Passed	0.642	0.915
Mineral Series – Flaxen	43	Passed	0.380	0.880

WOOD COLLECTION	SRI Value	LEED Credit	R AVG	EM AVG
Antique Wood Series – Agave Forest	49	Passed	0.424	0.910
Antique Wood Series – Aged Medallion	49	Passed	0.429	0.900
Antique Wood Series – Dove	52	Passed	0.450	0.910
Natural Wood Series – Chicory	30	Passed	0.267	0.940
Natural Wood Series – Bark Brown	38	Passed	0.344	0.910

**Need Help Determining the Right Color, SRI Value, or LEED Qualification for your project?
Speak to one of our subject matter experts today!**

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