

All Ecobrik tests performed by independent labs Powertech Labs (Vancouver) and SGS (Swiss based) affiliate in Taiwan

	Ecobrik™	Concrete brick
<b>Physical Properties</b>		
Size	8" x 4" x 2.25"	8" x 4" x 2.25"
Unit weight	1.55 kg	3 kg
	3.4 lbs	6.6 lbs
# units per pallet	929 units	480 units
Weight per pallet	1,440 kg	1,440 kg

ASTM testing methods and standards are used as they are higher than CSA

<b>Chemical Properties</b>		
Raw materials	Plastic waste, aggregates	Cement, aggregates, water
CO2 emitted per brick	10.46 gCO <sub>2</sub> e	388 gCO <sub>2</sub> e

<b>Mechanical Properties</b>			
Mass loss post Freeze-Thaw	0.03%	< 3%	ASTM C67, C666
Compressive strength			
New	79 MPa	> 20 MPa	ASTM C902, C67
	> 11000 psi	> 2900 psi	
Post Freeze-Thaw	> 48 MPa	> 16 Mpa	ASTM C902, C67
	> 7025 psi	> 2320 psi	
Post Weather	> 48 MPa	> 16 Mpa	ASTM G155
	> 7025 psi	> 2320 psi	
Tensile Strength	34.4 Mpa	3.3 Mpa	ASTM C67, C902, C1272,
	5000 psi	475 psi	
Absorption rate	0.2% cold - 0.4% boiled	8% cold - 11% boiled	ASTM C902, C1272, C216 SW (Severe weathering)

<b>Total Installation Cost</b>	Based on Ecobrik weight at ~ 50% Concrete bricks
Selling price	Similar to Concrete bricks (including Samsara and retailer's mark-ups)
Paving time and cost	easy to do precise cut, less wear and tear on cutting tools and blades
Wrist and back injuries	Reduction of wrist and back injuries and related insurance premiums
Transportation cost	50% time and cost savings of one trip per full load shipment: Ecobriks
CO2 emission during transportation	50% savings due to 50% fewer trips

Environmental Properties - Leachate*	Ecobrik™ (EPA 1315)	Plastic recycling plant in UK
Filter	None	5 µm (micrometer)
Particles size collected	> 0.45 µm	> 1.6 µm
Leachate level	0.0017% residue*	6.00% Effluent

\* As of March 2025, no known standards or regulations on acceptable level of Micro Plastics (MPs) leachate.

\*\* Post-Absorption, Weathering, Freeze and Thaw tests combined

Safety Concerns	Ecobrik™	Household materials
Flammability test: Burning rate	26 mm~29 mm/min*	< 40 mm/min
* (Exceeds International Building Code and Florida Building Code)		ASTM D635