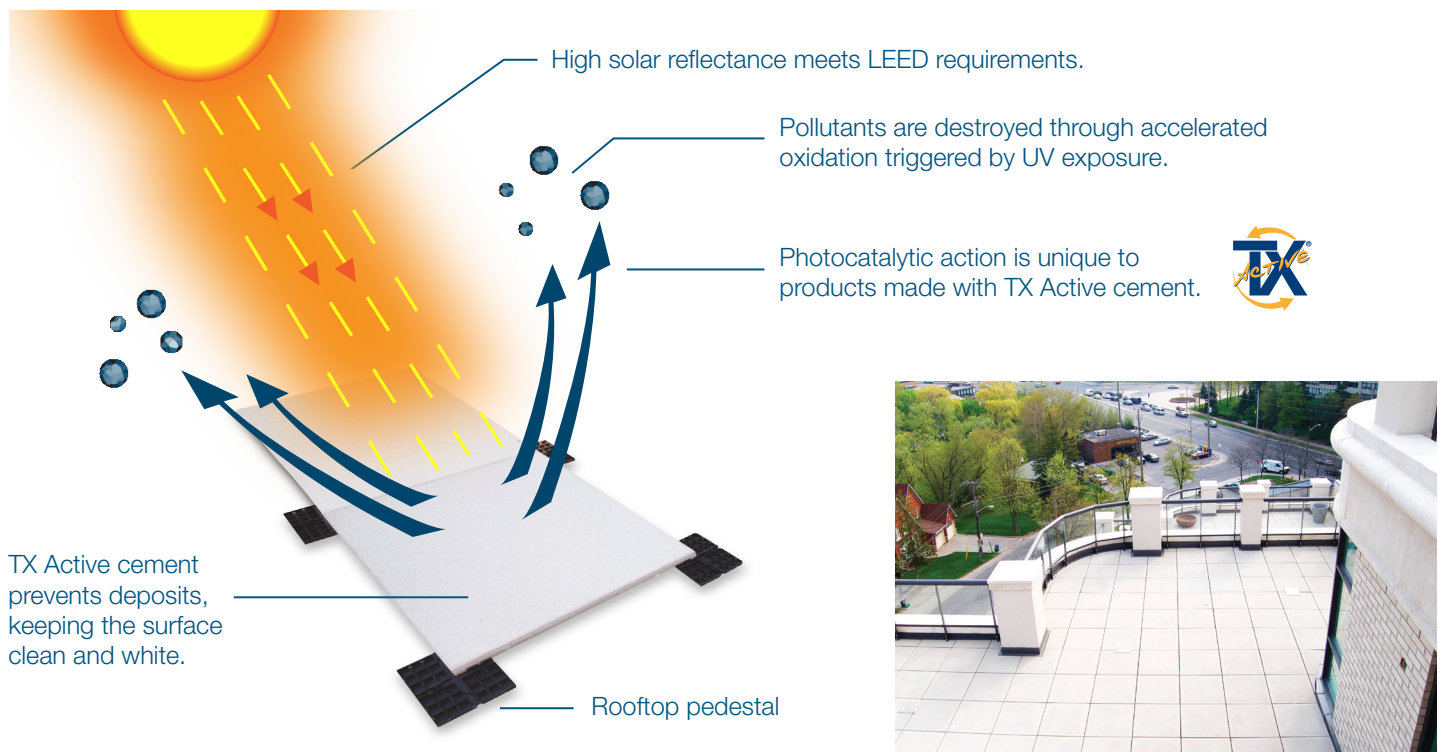




## Introducing **SmartCast® Clean** - a cleaner and greener rooftop paving solution.

Hanson is pleased to introduce the most advanced sustainable rooftop paving solution available on the market. *SmartCast Clean* is created using a unique formulation of special aggregates, admixtures and TX Active® photocatalytic cement. The result is a paving product that is solar reflective, reduces pollution and is self-cleaning so that it will continue to provide environmental benefits for future generations.



### Keeping it cool - **Solar Reflectivity**

The increased average temperature of urban areas over surrounding rural areas - referred to as the urban heat island effect - is caused by impermeable surfaces such as roofs and pavement that absorb heat from the sun. *SmartCast Clean* uses white cement and aggregates to achieve a bright white surface colour that is highly reflective. This reflective surface reduces the amount of heat energy absorbed from the sun which helps reduce the heat island effect, conserve energy and improve air and water quality.

### Keeping it green - **Pollution Reduction**

Photocatalysis is a natural phenomenon during which light energy is used to break down organic and inorganic pollutants, converting them to harmless salts. *SmartCast Clean* containing TX Active photocatalytic cement speeds up this natural process, significantly reducing harmful atmospheric pollutants including nitrogen oxides, sulfur oxides, volatile organic compounds (VOC's), urban smog and other industrial threats to health and air quality. The catalytic ingredient is not consumed during the oxidation process and will continue to perform with minimal maintenance as long as the tiles receive UV light.

## Keeping it clean - Self-Cleaning

The photocatalytic properties of *SmartCast Clean* prevent organic and inorganic pollutants from accumulating on the surface of the tiles, keeping them clean and white and retaining their high reflectivity and photocatalytic properties indefinitely with very little maintenance required.

## Making a statement - A Sustainable Future

Hanson aims to be proactive in the provision of sustainable products and services. *SmartCast Clean* contributes to the future of green building with increased eligibility for LEED® credits over traditional building materials in the following categories:

- ❖ **Sustainable Sites** - Certified laboratory tests of the solar reflective properties of *SmartCast Clean* delivered results of SRI 80+, exceeding LEED requirements for low slope roofing (SRI≥78). In addition, due to their self-cleaning properties, *SmartCast Clean* tiles are designed to maintain a high SRI value for an extended period of time.
- ❖ **Material & Resources** - *SmartCast Clean* tiles contain supplementary cementitious materials such as slag and flyash, that qualify as recycled material under LEED.
- ❖ **Regional Materials** - Wherever possible, Hanson uses locally sourced raw materials such as gravel and sand. In addition, our manufacturing facility in Cambridge, Ontario is centrally located within LEED requirements for most of Ontario and Quebec as well as many Midwestern and Northeastern United States.
- ❖ **Durable Building** - *SmartCast Clean* tiles used in rooftop applications have a much longer life expectancy than traditional roofing options. Outstanding test results in compressive and flexural strength mean that tiles will last as long as the buildings they cover.
- ❖ **Innovation & Design** - *SmartCast Clean* tiles show exceptional performance in aged reflectance, air pollution abatement, durability and the potential for reuse/reinstatement. Maintenance of roof membrane underneath tiles is easy by simply removing the tiles in the affected area and replacing them after the necessary maintenance has been performed.

Hanson is committed to providing sustainable solutions today for the benefit of tomorrow. *SmartCast Clean* provides conscientious designers, builders and developers with a truly sustainable rooftop paving solution for any new or retrofit projects, assisting them to create greener buildings and sustainable structures for future generations. It's smart to be green!



	600x600 Module		400x600 Module		400x400 Module	
	600 x 600 x 40 mm (23.62 x 23.62 x 1.57 in)		400 x 600 x 40 mm (15.75 x 23.62 x 1.57 in)		400 x 400 x 40 mm (15.75 x 15.75 x 1.57 in)	
pcs:	28/bdl		56/bdl		56/bdl	
area:	3.87 ft <sup>2</sup> /pc	0.36 m <sup>2</sup> /pc	2.58 ft <sup>2</sup> /pc	0.24 m <sup>2</sup> /pc	1.72 ft <sup>2</sup> /pc	0.16 m <sup>2</sup> /pc
	108.4 ft <sup>2</sup> /bdl	10.1 m <sup>2</sup> /bdl	144.5 ft <sup>2</sup> /bdl	13.4 m <sup>2</sup> /bdl	96.3 ft <sup>2</sup> /bdl	8.9 m <sup>2</sup> /bdl
wt:	72.1 lbs/pc	32.7 kg/pc	48.3 lbs/pc	21.9 kg/pc	32.0 lbs/pc	14.5 kg/pc
	2018 lbs/bdl	915 kg/bdl	2706 lbs/bdl	1227 kg/bdl	1791 lbs/bdl	812 kg/bdl

Minimum order quantities apply. Contact your Hanson Representative for details.

In Canada	CSA A231.1 (latest revision)
Flexural Strength	Minimum average of 3 slabs to be 4.5 MPa with no individual unit below 4.0 MPa.
Durability	Average loss of mass of 3 samples to be less than 300 g/m <sup>2</sup> of surface area after 28 freeze-thaw cycles or less than 800 g/m <sup>2</sup> of surface area after 49 freeze-thaw cycles
In USA	ASTM C1491 (latest revision)
Compressive Strength	Average of 3 slabs to be greater than 3000 psi with no individual unit below 2600 psi. <b>SmartCast Clean results = 50 MPa (7000+ psi)</b>
Flexural Strength	Average resistance of 3 slabs to be greater than 350 lbs with no individual unit below 280 lbs. <b>SmartCast Clean results = 650 lbs</b>
Durability	Maximum 1% weight loss of 5 specimens subject to 100 freeze-thaw cycles or maximum 1.5% weight loss of 4 of 5 specimens subject to 150 freeze-thaw cycles.

[www.hansonhardscapes.com](http://www.hansonhardscapes.com)

Call 800 265 6496 for more information.



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