



Introducing the Green Elements of SPC Products

数鈞泰工程 Kwan Tai Engineering

WHAT IS SPC?



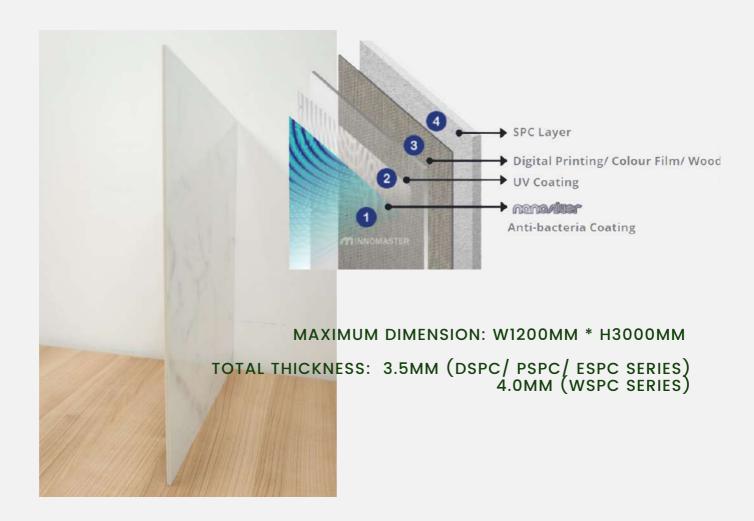
SPC stands for Stone Polymer Composite, belongs to a limestone core material combined with vinyl resin and other stabiliser.

The SPC material is developed into Interior decorative wall cladding panel and flooring by innovative technology.

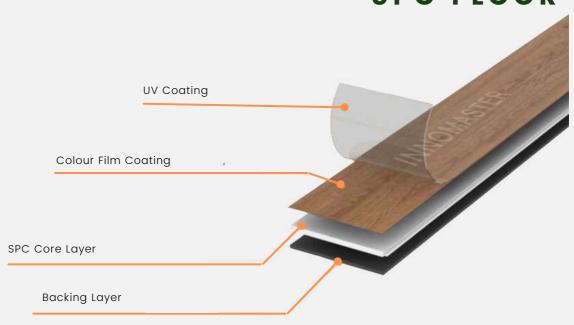
Our SPC floor and wall panel feature with eco-friendly, fire and water proof properties.

By adopting the innovative construction method, it achieves time efficient, cost saving and reduce construction wastage of construction projects.

STRUCTURE OF SPC WALL PANEL



STRUCTURE OF SPC FLOOR



SPC GO GREEN

We are committed to source and supply environment friendly materials and technologies. Other activities and processes are also managed in a manner to ensure that environment is not adversely affected.

To achieve carbon footprint optimisation, the energy required from manufacturing, transportation, installation and maintenance of SPC product is optimised.



RAW MATERIAL



The main component (~60%) of SPC is Calcium Carbonate (CaCO3), a form of inorganic compound. This natural substance is commonly found in limestone, marble, chalk, aragonite, and other rock.



GREEN PRODUCT

This new generation of calcium carbonate product, "Crystal Stone" is developed by biomimetic and nano technology.

By adopting the environmental protection formula, the SPC product does not emit formaldehyde nor contain soluble heavy metals, phthalates, methanol and other harmful substances

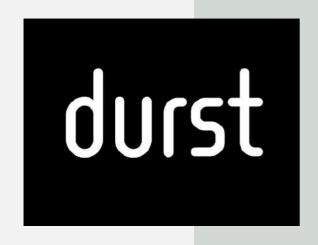
Our SPC Products comply with:

- EN14372: Child use and care articles Cutlery and feeding utensils Safety requirements and tests
- EN649-2011: Resilient floor coverings Homogenous and heterogenous polyvinyl chloride floor coverings
- GB 18580-2017: Formaldehyde emission
- GB 18586-2001: Soluble Heavy Metals, Vinyl Chloride Monomer (VCM), Volatile Matter (VOM)
- IEC62321 Determination of certain substances in electrotechnical products Part 10: Polycyclic aromatic hydrocarbons (PAHs多環芳烴) in polymers and electronics by gas chromatography-mass spectrometry (GC-MS)



GREEN PRODUCTION

Invest in innovative, efficient production technology



The production line of our SPC products adopts DURST, the most versatile and productive printing systems on the market, which enable to eliminate the process of calendaring and hence significantly increase in quality and production efficiency.

Wastage reduction is achieved due to better quality control.

Glue-less Production

Our SPC floor is manufactured by one-off heat-pressing technology where no glue/ adhesive is being applied during the production process.





Besides ISO 9001 Quality Management System. the manufacturer is also certified with ISO 14001 Environmental Management System, where all activities and operation that have significant impact on environmental production have been identified, monitored and seeking for continuously improvement.

These activities and operation range from production, storage, handling and disposal of oil/lubricants and other chemicals; packing; generation of metal dust; use of vehicles for transportation of incoming and finished products etc.



Transportation

We strive to minimise the carbon footprint being created to the society.

The SPC material is locally manufactured at factory located in Guangdong Province, which is within 150km coverage to Hong Kong, consuming much less energy than the requirements stipulated in BEAM+ or LEED (i.e. 800km).

Besides, to optimise the logistics arrangement, we will reduce the number of transportations by combining cargo trips, in order to lower the associated emitted greenhouse gas as low as possible.





Green Construction

For New Building Work:

Can directly install SPC wall panel on core wall substrate* of gypsum block/ gypsum panel/ concrete wall by proprietary adhesive without involving trade. As wet trade wet (involving cement sand rendering, grouting and pointing) under traditional tile installation is now avoided under SPC installation, water saving and a greener construction environment are now achieved.

*flatness required

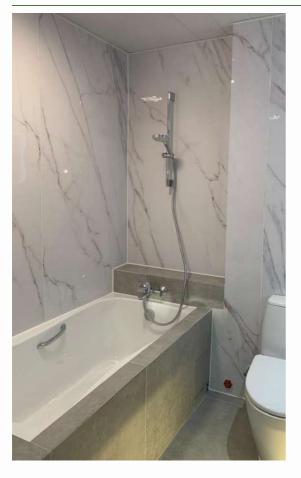




Furthermore, the lightweight feature of SPC wall panel [21kg for dimension (w)1.2m * (h)2.4m*(t)3.6mm), allow labour to carry out easier on site, production capacity is thereby enhanced.

Less wastage due to its flexible nature. Much faster installation time as large panel units involved. Tile has longer installation time as tile units are smaller and requires longer curing time and layer build up.

Green Construction For A&A Work:



The SPC product is the best eco-friendly solution for alterations and additions (A&A) works, as SPC product can be directly applied on existing flat wall and floor substrate without demolition.

For SPC Wall Panel:

Use propriety adhesive to install the SPC wall panel directly on flat wall substrate of tiled wall/ gypsum block/ gypsum panel/ concrete wall without involving wet trade. Our eco-friendly adhesive (in proprietary) is VOC/ formaldehyde free.

Besides, the large-sized feature of SPC wall panel, being (W)1.2m * (H) 2.4-3.0m *(T) 3.5mm allows direct installation with minimal joints.



For SPC Floor:

Glue-free installation by click ing system, can directly install on existing flat floor by floating method.





Low Maintenance

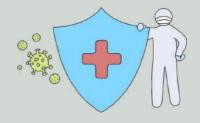
Durable

The SPC Wall panel achieves the "Heavy Duty grade" per BS 5234 Part 2 Impact Load Resistance Test

Anti-Bacteria

The SPC wall panel/ floor is specially treated with "Nano-Silver" anti-bacteria coating, effectively inactivate bacteria of Staphylococcus Aureus, Escherichia coli, Klebsiella pneumonia and germs—including fungi and mold on its surface.

Comply with ISO 22196, WS/T 650-2019



Waterproof

The SPC Wall panel is a waterproof material and passed water-absorption test of EN 14411: 2016 & ISO 10545-3:2018. Unlike conventional wall cladding materials such as wooden panel, wallpaper requiring high maintenance due to their weak water-resistance performance.









