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# SYNTHETEC™ STONE GRATING



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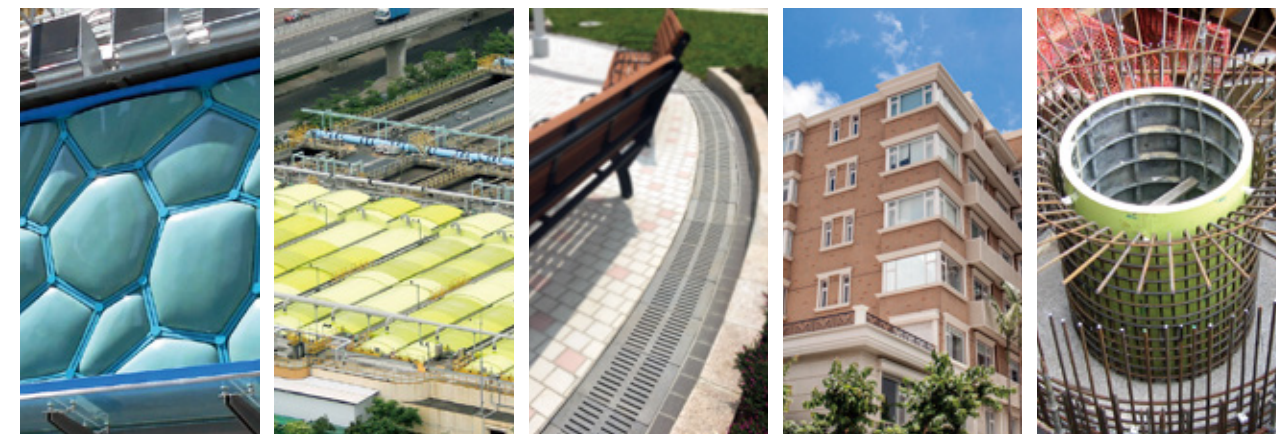
# About Us

## A Story of Non-Stop Improving

Headquartered in Hong Kong, FIBRPRO® is a team of engineers in fields of material, production, precast, mechanics, civil, structure, environment, estimation, construction, contract and management. It is with this unique background that FIBRPRO has been leading the way in design and production of Fibre Reinforced Polymer (FRP) materials in construction since its establishment in 2010. We specialise in providing design, engineering, manufacturing, delivery, installation and commissioning one-stop contracting service for a comprehensive range of FRP related works. We pride ourselves in challenging projects, and welcome the unique bespoke work.

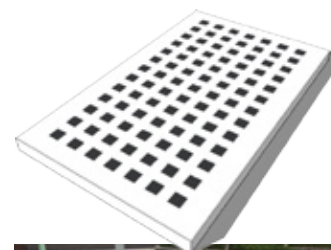
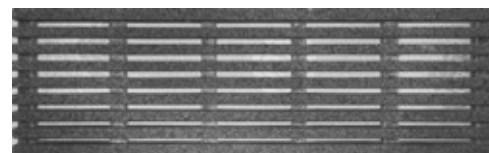
With our extensive knowledge of composite materials, manufacturing techniques, engineering skill and contracting experience, we extended our service scope to engineering precast or prefabrication products in 2015, and since then have been offering innovative and cost-effective solutions to address complex construction challenges and the high labour cost of local construction market. Going from strength to strength, in 2018, progressive FIBRPRO® set up its own manufacturing plant Guangdong as the sole proprietor with an unbeatable research and development (R&D) team, taking the development path that integrates education, research, production, and application.

Why do we read your minds and are able to realize your thoughts? Because we are the manufacturer, engineer and contractor!





FIBRPRO<sup>®</sup> **SYNTHETEC<sup>™</sup>** Stone Gratings are precast unit fabricated by using low content (approximate 15% by weight) of resin/polymer material as blinder, such as resin of polyester, epoxy methacrylates, phenolics, furans and vinyl ester etc. with quartz sand, natural or recycled crushed stone and recycled fillers, such as fine aggregate, mineral granulation or reused fibers. The mixed compound, which is an almost agglomeration of natural stone substrates & mineral oxides is filled into moulds and compacted to form panels or any shapes of features under a high-tech vacuum & compression process.



## Product Advantages



**Absolutely  
Corrosion Resistant**



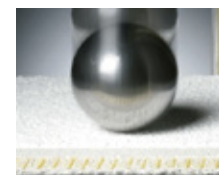
**Fire Retardant**



**Chemical Resistance**



**Aging Resistance**



**Impact Resistance**



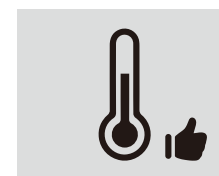
**Non-slip Surface**



**Loading Sustainable**  
Vehicular Loading  
up to 400KN



**Light-Weight**



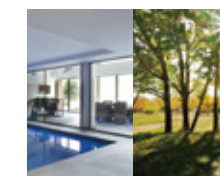
**Insulation Properties**



**Low  
Noise Nuisance**



**Low  
Maintenance Cost**



**Indoor & Outdoor  
Suitable**



**Cost Effective**



**Low Potential  
of Stealing**



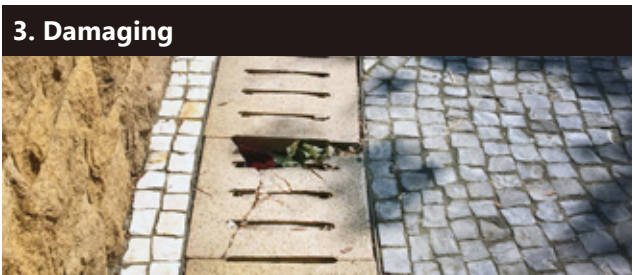
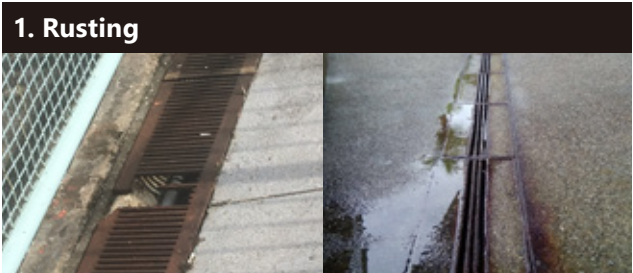
**Custom Made**  
Colors / Patterns / Shapes /  
Holes / Finishes



**Design Free**



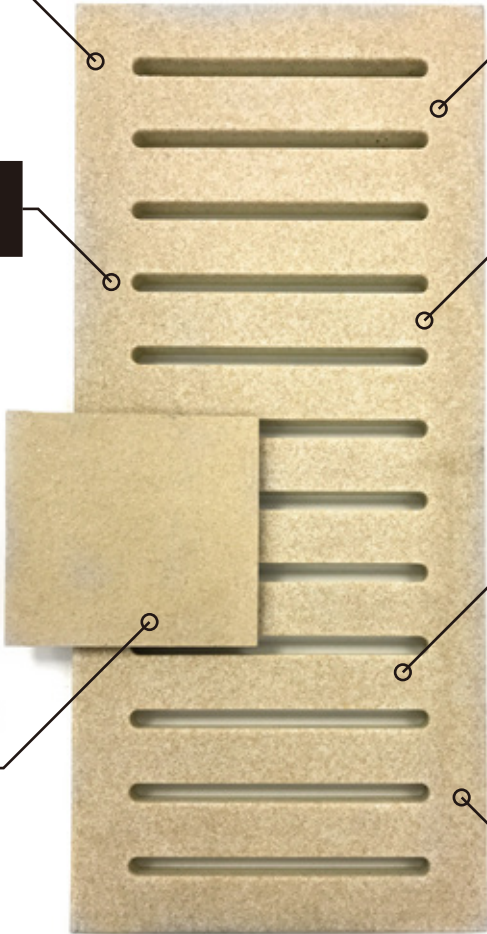
# Current Problems & Solution



1. Non rusting material integrated

2&3. High strength and durable composite integrated

4. Color matching integrated

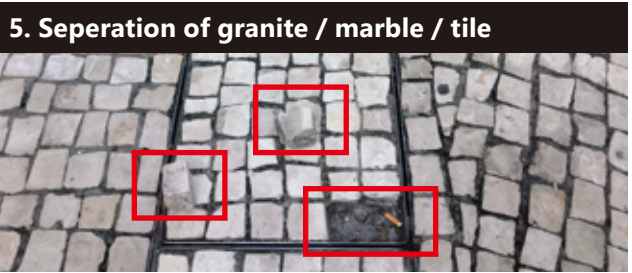


5. Pattern & textile integrated


6. Anti-slip surface integrated

7. Non-metallic material integrated

















8. Color integrated



# Technical Information

Properties	Test Method	Result
 Fire Test on Building Materials and Structures	BS 476: Part 7	Class 1
 Flexural Strength	BS 2782: Part 10	33MPa
 Shear Strength	BS 2782: Part 3	31MPa
 Tensile Strength	BS 2782: Part 10	14MPa
 Compressive Strength	BS 2782: Part 3	75MPa
 Absorption Water by Immersion	BS EN1170: Part 6	< 0.5% (in 7 days)
 Anti-Slip	DIN 51130	R11
 Abrasion Resistance	BS EN13748	< 30 cm3 / 50 cm3

# Comparision between commonly use materials for channel grating

	<div>FIBRPRO<sup>®</sup> precast SYNTHETEC<sup>™</sup> Stone Grating</div>	Granite / Marble	Cast Iron	Stainless Steel	Fiberglass
Approximate Material Density (Kg/m³)	1,800 Light-weighted 	2,700	7,800	7,800	1,500 Light-weighted 
Aging Resistance	Good 	Good 	Poor	Good 	Good 
Conductivity	Insulator 	Insulator 	Conductor	Conductor	Insulator 
Chemical Resistance	Good 	Good 	Moderate	Good 	Good 
Anti-Slip	Good 	Poor	Poor	Poor	Moderate
Design Flexibility (Color, Shape, Hole )	Good Custom Made 	Poor	Poor	Poor	Moderate
Material Cost	Moderate	High	Low 	High	Moderate



# Approved for Children Playground

## Available for barefoot stepping

The temperature rises slightly under direct sunlight

**FIBRPRO® SYNTHETEC™ Grating:** max. up to 40 - 50°C

Traditional cast iron channel grating: max. up to 70 - 80°C



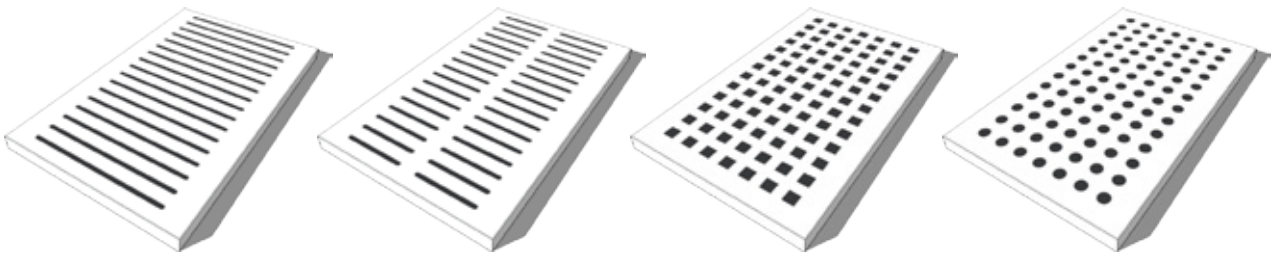
# Loading Test

## Available for several Load Bearing Requirements

Complied with BS EN 124 Standard carrying out in the HOKLAS Accredited Laboratory



# Standard Product



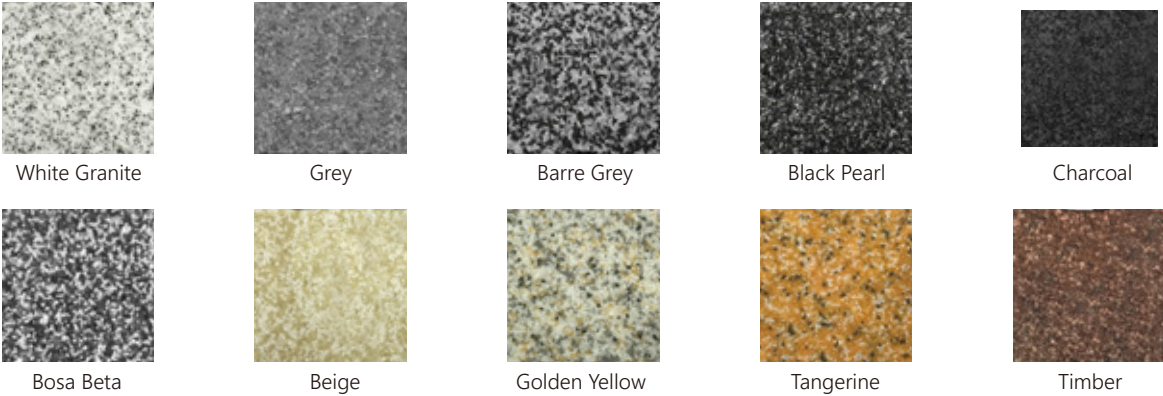
Single Slot      Double Slot      Square Hole      Round Hole

## Standard Size:

Model no.	Length	Width	Thickness*	Span
FPG-001	500 / 600	150	20 / 25	100
FPG-002	500 / 600	225	20 / 25	150
FPG-003	500 / 600	300	25 / 30	225
FPG-004	500 / 600	400	25 / 30	300
FPG-005	500 / 600	500	25 / 30 / 35	400

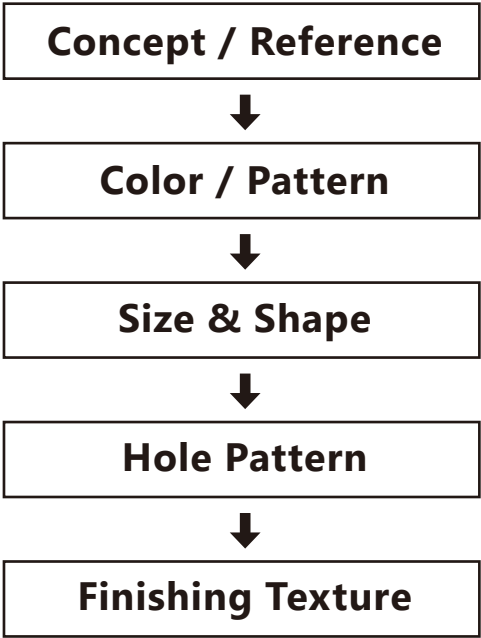
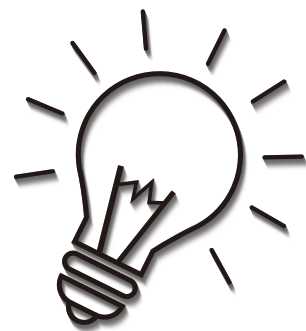
\*The thickness of prodcut depends on the loading requirement

## Standard Color:



# Custom Made Service

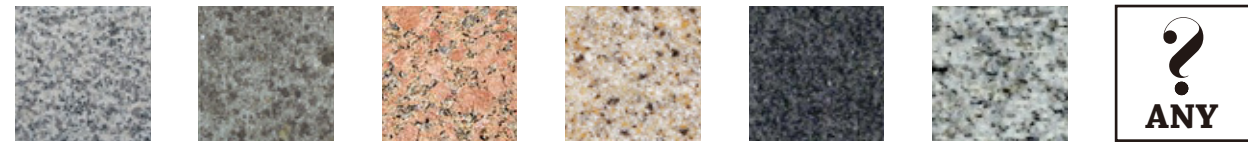
FIBRPRO® **SYNTHETEC™** Stone Gratings today covers a nearly limitless array of colors, and is known for being custom made to fit even the most complex design for shapes and patterns, durable, sustainable, and versatile. From the indoor bathroom, washroom and kitchen to the outdoor garden, children playground, schools, hospitals, and any public plaza, synthetic grating serves as the essential part of flooring canvas with infinite possibilities.



ONE STOP SOLUTION TO CONVERT YOUR IDEA INTO REALITY  
**ACT NOW FOR YOUR NEW GRATING DESIGN!**

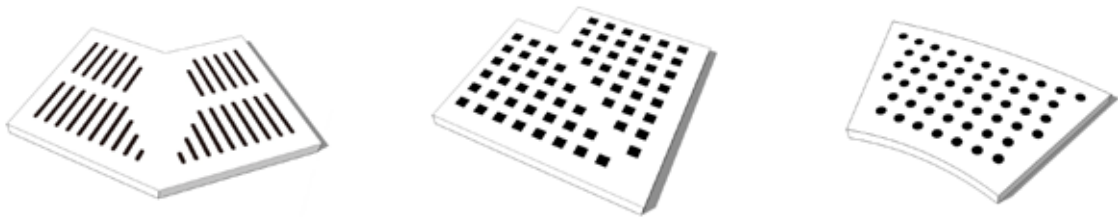
## Color / Pattern

Design your flavour color / pattern by our color / pattern matching consultation service.



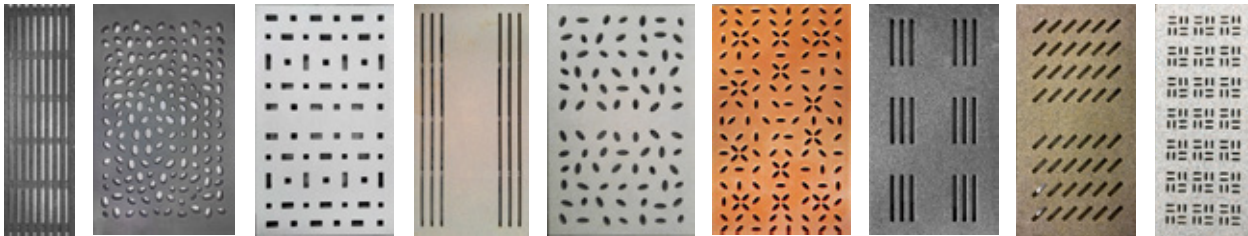
## Size & Shape

Design your flavour size and shape to fit your actual situation



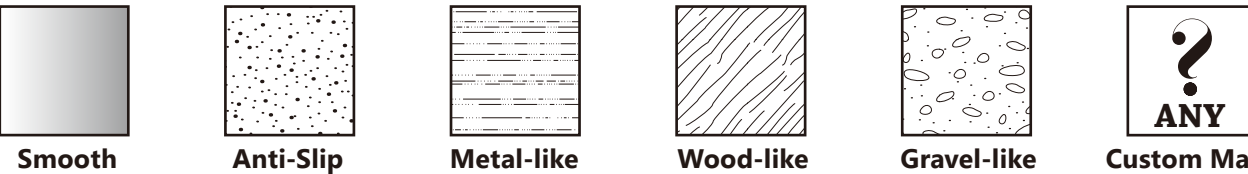
## Hole Pattern

Design your flavour hole pattern to enrich the style



## Finishing Texture:

You could choose several types of finishing according to the grating usage.





# Applications – Indoor

Kitchen



Shower Room



Corridor



Back of House



Shopping Mall



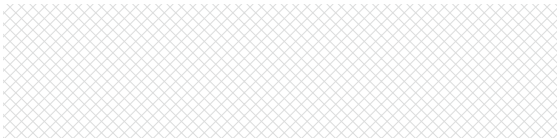
Wet Market



Swimming Pool





Podium






# Applications – Outdoor

Garden








Park





Green Roof





Entrance








Court





Playground





Pedestrian





Driveway / Carpark







Versatile FIBRPRO® SYNTHETEC™

Tree Pit Cover



Expansion Joint Cap



Pool Grip Tile



Decking

