



Moulding ideas
into Shape



ADVANCED
CONCRETE
FACADES W.L.L.

ARCHITECTURE HAS A NEW SHAPE





We can help you imagine tomorrow and
pioneer new ways to make it happen,
helping free your future structures from
yesterday's conventional thinking.

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BFG INTERNATIONAL

BUILDING NEW MARKETS IN COMPOSITES

For over 40 years, BFG has been a global leader and pioneer in composite design, engineering, and manufacturing, with over 2,000 people and 15 production facilities worldwide – and a total commitment to quality and innovation.

Sector Focus

We currently cater to six industry sectors, each with unique performance requirements:

- Architecture and Infrastructure
- Transportation
- Corrosion Engineering and Process Equipment
- Wind and Renewable Energy
- Environmental Systems
- Leisure and Recreation.

Working in-depth with sector leaders, we have world-leading cross-functional knowledge and expertise in design methodology, materials composition, and manufacturing processes – delivering significant advantages in performance, productivity, and efficiency to each sector.

Landmark Developments

Since 1975 we have worked in partnership with the world's leading architects, consultants, contractors, rail rolling stock builders, industrial process designers, and renewable energy specialists across the public and private sectors to create bespoke composites for a new generation of iconic buildings, industrial components, and advanced transport networks: from the TGV in France to the KAFD World Trade Centre in Saudi Arabia.

Today, you'll find our advanced products at work in the key landmarks and transport systems of many of the world's major cities, stretching from Chicago to London to Sydney. Our structures include the world's largest Fiber Reinforced Polymer (FRP) composite dome, the world's most extensive FRP composite roofing system, and both Composite FRP and Ultra High Performance (UHPC) claddings on landmark sports stadia, university facilities, and super tall buildings. We consider every project an opportunity to conceive and deliver innovative ideas, learning from and working with the best.

Driven by Innovation

Today's FRP composites and UHPC are designer materials, offering boundless possibilities. BFG is driven by a vision to harness these possibilities.

Over the years, innovation has become our hallmark, leading to pioneering advances, including developing our unique material systems, manufacturing processes, and patented technologies. We have made a significant investment in international ventures spanning areas as diverse as wind energy, anti-ballistic composites, and

advanced compact wastewater purification. Our dedicated R&D Centre in Strasbourg is working in partnership with universities, laboratories, and designers to develop revolutionary new wastewater treatment technologies.

Global Footprint. International Reach

What makes us genuinely different is our presence in diverse sectors, along with a global footprint – and our proximity to you. In recent years, it's taken us across five continents, serving major clients across six. BFG has fabrication and operational facilities in Bahrain, France, Spain, USA, Brazil, China, India, the Philippines, and South Africa. Covering more than 100,000Sqm of manufacturing space and enabling us to offer global sourcing, regional manufacturing, localized delivery, and installation of world-class composites.

Serving the World's Leading Architects and Contractors

We've worked in partnership with key players in architecture and infrastructure since we opened our doors in 1975. We've grown since then – in the scope and complexity of our services and the diversity of projects we inspire. We work with leading architects, consultants, contractors, and governments worldwide, delivering bespoke composites for facades and claddings, structural roofing systems, domes, and ceilings.

Over the last four decades, we've provided the latest composite innovations to architects with all the durability and versatility they need to create a new generation of structures – public buildings, sports arenas, hotels, transport hubs, malls, and high-rise structures. We have given designers the freedom to build large scale and complex lightweight structural shapes which would be too complicated and costly to achieve in any conventional materials.

Our role has been pioneering from developing long-span composite primary structures to advanced lightweight fire-retardant materials. Today you'll see our advanced composites in structures designed or built by many of the world's leading creative architects and consultants.

Conception to Completion

At BFG, we deliver the full life cycle of services: conceptualization, modeling, iterative design development, systems and process engineering, structural design, material and product development, testing, sampling, prototyping, and product manufacture, all the way to delivery and installation.

Engineering Excellence

Our team of over 120 talented and skilled engineers, backed by expert, hands-on leadership, roots its design and engineering methodology in a wealth of experience in materials and processes. With over 40 years of project records and an accumulated database of material properties and test results, our engineers have decades of technical data and insights to draw on. BFG's team is also in constant touch with world-leading universities and researchers to add state-of-the-art design expertise to its projects. Many of our engineering leaders have had successful careers in manufacturing and installation, meaning that BFG's designs are created in the context of practical requirements, saving time and cost throughout the project life cycle.

Today, BFG deploys state of the art design and engineering tools, including CATIA, NISA, HYPERMESH, and other advanced software to work seamlessly alongside the world's leading architects, consultants and engineers.

Over the last 25 years, BFG's composite structures have been subject to rigorous independent full-scale load tests with strain capture. With hundreds of successful load-deflection tests conducted, our composite products' structural performance has been proven to perform in the most challenging applications and environments.

Environmental Impact and Sustainability

At BFG, we are committed to sustainable development. Our teams of architects, engineers, and researchers are continually striving for ways to minimize environmental impact. In our Architecture and Infrastructure group, we lead the way in supporting clients to achieve LEED certification for their buildings.

Around the world, BFG Architecture is dedicated to creating a lower carbon future – from replacing outdated energy-intensive building materials, to pioneering new, low-energy ways to purify wastewater. To us, sustainability and innovation go hand in hand, so we invest in intensive research, development and testing to enhance the performance of our composites still further.

And because sustainability begins at home, we are constantly working on ways to minimize our impact on the communities around us - with the utmost respect for local environmental protection and stewardship. BFG Architecture is a sustainable business, working together to shape a sustainable future.

BFG Architecture's world leading composites are completely benign in the environment – producing no fumes, residue or toxins. They are weather, mould and termite resistant, and require far less repair and replacement than the traditional materials they are designed to supersede, with a life expectancy of many decades.

Quality Assurance

BFG is certified to ISO 9001:2015 and to the IRIS standards in the rail industry. BFG's meets Class A1 of the German standard DIN 6701-2 for manufacturing adhesive bonds on rail vehicles and are certified to EN15085-2 for welding. External third-party certification consistently places BFG in 'industry best' positions. BFG is also certified for ISO 14001:2005 and OHSAS 18001:2007.

Manufacturing Diversity

BFG International's specialist manufacturing processes including:

- Open contact molding (OM)
- Resin transfer molding (RTM)
- Vacuum infusion (VI)
- Hot Press Molding (SMC)
- Casting
- Tool and Mold Making
- Sheet Metal Fabrication
- Electrical, Pneumatic and Hydraulic Systems integration and Assembly



INTRODUCTION TO FRP COMPOSITES

Fibre-reinforced polymer (FRP) composites are comprised of reinforcing fibres embedded in a polymer matrix. Most commonly, the reinforcing fibre is fiberglass, although high strength fibres such as aramid and carbon are used in advanced applications. This combination of plastic and reinforcement can produce some of the strongest materials for their weight that technology has ever developed.

FRP composites are incredibly versatile—it is possible to produce an endless variety of composites to meet the exact requirements of very specific applications. Designers and engineers can modify the physical and chemical characteristics of FRP by specifying different materials. For example, high glass fiber reinforcement structures produce maximum physical strengths; high resin content structures produce maximum chemical resistance. An engineer can specify the combination of the two materials to create a composites structure resulting in an optimum design.

FRP Composites in the Architecture Industry

FRP composites are fast becoming the material of choice for architectural applications thanks to their aesthetic qualities, versatility, and functionality.

The material offer design flexibility and can be moulded into complex shapes such as curved, corrugated, ribbed, or contoured in various ways with varying thickness. These characteristics make them a popular choice for decorative details, mouldings, columns, and brackets. Furthermore, textures such as stone, marble, copper, gold, or chrome are achieved at a fraction of the cost. Moulds can also be created to replicate the most complex profiles in restoration, renovation, and new construction.

Composites allow ample scope for customisation in building interior applications too. Composite wall panels allow architects to create designs that are impossible or impractical with traditional materials, improve thermal performance and energy efficiency, and meet building code requirements. Further, they are available in a variety of colours and different textures, including smooth, rough, painted, acid etched, sand-blasted, and with exposed aggregates.

The high strength-to-weight ratio offered by composites translates to a smaller foundation requirement and eliminates the need for most secondary aluminium framing and mechanical fasteners. Building facades and structural elements made from composites are more durable than traditional materials as they are resistant to adverse weather conditions (UV radiation or acid rain), and are easily maintained. FRP composites are also the more environmentally friendly choice and can help you achieve LEED certification for your project.

Whether used for small rain-screen cladding panels, complex curvature building envelopes, domes and cupolas, decorative screens, latticework, or shading elements, composites reduce overall project costs and help you achieve quicker construction due to prefabricated parts and parts consolidation.

BFG Architecture has helped create some of the world's most dramatic skylines, and we look forward to working with you on your next project. Our experienced engineers produce cost-effective and high-performance composite architectural elements that fully harness the advantages of this versatile material to produce a more beautiful, durable, and environmentally friendly building.

Benefits of FRP Composites

High Strength with Low Unit Weight

FRP materials are amongst the most robust commercial materials available. For equivalent weight, FRP is more rigid in many ways than conventional construction materials. Thin sections can be used, with structural core materials providing stiffness using structural core materials without substantially increasing weight.

Very High Durability and Corrosion Resistance

Unlike metals, FRP materials do not suffer from corrosion/rusting or weather induced aging. Materials fabricated from FRP additionally have a longer service life in corrosive environments and perform extremely well in damp environments or even submerged in fresh and salt water. As a result, FRP architectural parts can often reduce long-term maintenance costs when compared to many traditional materials.

Parts Consolidation and Minimum Number of Visible Joints

A single FRP structure can replace an assembly of many parts and fasteners. This feature saves time, reduces assembly costs, and has given rise to the “cascade effect” of benefits for the user: For example, lighter equipment, smaller work crews, and lighter supporting structures can be used during installation.

Excellent Fire Characteristics

FRP systems can be designed to meet most reaction-to-fire requirements mandated in the International Building Code sections related to interior finish, light-transmitting materials, and external assemblies.

Radio Frequency Transparency

Most glass-fiber-based FRP composites are transparent to radar and radio frequencies. This attribute enables composite products to be designed to hide communications equipment on top or within building structures.

Appearance Flexibility

An extremely wide range of textures, shapes, and colours is achievable when manufacturing parts or building components with FRP materials.

How Composites Can Help Achieve Leed Certification

Low resource requirement

Lightweight FRP materials have low ecological and carbon footprints. The overall materials and resource requirement in FRP production is significantly lower than for traditional building materials.

Low energy

FRP uses less energy in the production process - from the raw materials stage all the way to product delivery.

Long product life cycle

FRP is a durable, low maintenance, long lasting material, with a long-life cycle as determined by Life Cycle Assessment (LCA) studies. This reduces the need for replacement, repair and repainting over time.

Natural, non-depleting materials

Glass, the main ingredient of the fiberglass reinforcement in FRP, is made from sand which is a natural, non-depleting resource.

Resistance to damage

FRP materials are resistant to damage by moisture, weather conditions, salinity, as well as by termites and other insects.

BUILDING NEW MARKETS IN COMPOSITES

SPANNING SECTORS

BFG is an expert in composite design and engineering across the most diverse array of applications, from Europe's latest high-speed trains to critical components for the next generation of wind turbines.

ARCHITECTURE AND INFRASTRUCTURE



FREEDOM

Composites have become an essential creative asset, giving a new generation of designers freedom to build complex shapes; reaching higher, spanning further and enabling an ever more imaginative built environment.



REACH

What makes us genuinely different is our presence in diverse sectors along with a global footprint – and our proximity to you. In recent years, it's taken us across five continents, serving major clients across six.

Since 1975, BFG has worked hand in hand with the world's leading architects, structural engineers and contractors to deliver turnkey composite solutions for external façades and claddings, complete structural roofing systems and domes, ceilings and shades. Our current portfolio of work includes major projects as diverse as the high-rise KAFD World Trade Centre in Riyadh and the historic Holborn Station on the London Underground.



TRANSPORTATION

STRENGTH

Strong, lightweight composites are a key component in modern transport networks, from the high-speed TGV in France to the latest local and regional trains in South Africa.



For almost 20 years, BFG has been a market-leading manufacturer of composites for the broadest range of transport applications – from automotive to rolling stock.

Our sector-leading FRP products cover interiors, exteriors, drivers' cabs and desks, front ends, sanitary modules and floors for buses, trucks and trains for clients including Alstom, Bombardier, Siemens, and Volvo.



INDUSTRIAL



HEAVY DUTY

The latest FRP composites bring a host of advantages to industrial projects. Inherently corrosion and fire resistant, they can withstand heavy duty workloads with little or no maintenance over the long term.



ROBUST HEAVY DUTY

FRP composites are structurally robust, and are capable of covering long spans with the minimum of joints.

For over 40 years, we have offered our industrial clients' complete composite design solutions. From conception to production, including the industrial, engineering and structural design of everything from simple maintenance hole covers and linings to elaborate long-span covers for water and wastewater treatment plants.



SECTOR FOCUS

RENEWABLE ENERGY



SUITABLE

BFG's composites are strong, safe and lightweight, making them perfect for highly specialised applications in renewable energy.

As part of our commitment to sustainability, BFG fabricates high-quality FRP composite components – including extremely durable spinners and nacelles – for the world's leading wind turbine manufacturers including GE, Hitachi, Siemens, Gamesa, Acciona, Alstom and Leitwind.



CRITICAL

In the wind sector, where long-term durability is key and maintenance is challenging – sometimes up to 100 metres above the sea – composites are required to protect wind turbines' most critical components.



SECTOR FOCUS

ENVIRONMENTAL



LEADING EDGE

BFG is at the leading edge of design and engineering, most notably in areas demanding the highest environmental and safety standards.

BFG Environmental Technologies, BFG's research and development centre in Strasbourg, is focused exclusively on scientific and technical research. Working in close partnership with select universities, laboratories and designers, it is a hothouse for the development of innovative new technologies which will help reduce costs and improve sustainability.

IRIS, ISO 9001:2015, DIN-6701 Certified.



COLLABORATIVE

Our dedicated R&D hub in Strasbourg works closely with all BFG plants and partners with elite Universities, laboratories and designers to develop new technologies that enhance sustainability and improve efficiency.



LEISURE AND RECREATION



SAFE

Composites have many valuable applications in the leisure sector, where structural integrity and long-term durability are critical performance factors.



LIMITLESS

From marine craft and floating docks to water slides, BFG's advanced FRP can be shaped into a limitless array of forms.



Composites have significant applications in the leisure sector, where structural integrity and long term durability are critical performance factors. From marine craft and floating docks to water slides, BFG's advanced FRP can be shaped into a limitless array of forms.

Today, BFG is a long-standing partner to WhiteWater of Canada, producing high quality modular FRP components for the water parks designed and built by the company around the world.



GLOBAL NETWORK

CONNECTING A WORLD OF INNOVATIVE MATERIALS

Around the world, BFG enables its clients to become the inventors of their products, with 15 advanced composite fabrication facilities across four continents, an expert, internationally mobile talent base and a truly connected global supply chain.





**ADVANCED
CONCRETE
FACADES ^{W.L.L.}**

BFG ADVANCED CONCRETE FACADES

SERVING THE WORLD'S LEADING ARCHITECTS AND CONTRACTORS

BFG Advanced Concrete Facades delivers the entire life cycle of services, from conceptualization and modelling to iterative design development, process and structural engineering, material and product development, testing, sampling, and prototyping to manufacturing, all the way to delivery and installation. Our plant has a production capacity of more than 8000 metric tons-annually; our expert team ensures that the Quality and delivery schedules are not compromised to keep your project on track.

BFG Advanced Facades offers innovative Ultra-High-Performance Concrete (UHPC) and Glass Fibre Reinforced Concrete (GFRC) building envelope solutions, including structural, decorative, and screen panels in mesh or lattice style designs; ultra-thin, lightweight panels, and entire facades with complex shapes, curvatures, and textures.

Engineering Excellence

With extensive and comprehensive research carried out in recent years, BFG Facades has formulated highly-engineered UHPC mix designs under the brand name of ForteKret™, which can be customised as per the specification required by architects and engineers. BFG Engineering teams base designs on materials and process knowledge gathered through four decades of successful projects.

BFG engineering team works with the world's leading universities and researchers to deploy state of the art design knowledge for projects. Most of the engineers have worked in production or on site, ensuring designs are adapted for efficient manufacturing and installation, and cross-functional knowledge is shared between the five main domains that BFG works in.

The 120-strong BFG engineering team uses leading-edge BIM and 3D modeling technology including REVIT, RHINO, SOLID WORKS, CATIA and AUTOCAD for design, detailing and tooling. Our world-class structural design and analysis facility uses ANSYS, NISA, ALTAIR, HYPER MESH, STAAD PRO, LINCON and other advanced software.

Quality Assurance

BFG was awarded ISO 9001: 2000 in March 2001 and upgraded to ISO 9001: 2008 in February 2009. In September 2011, we achieved IRIS certification in the rail industry. We are also ISO 14001 & OSHAS 18000 certified for EHS management. BFG Facades is also a member of the GRCA and NPCA.



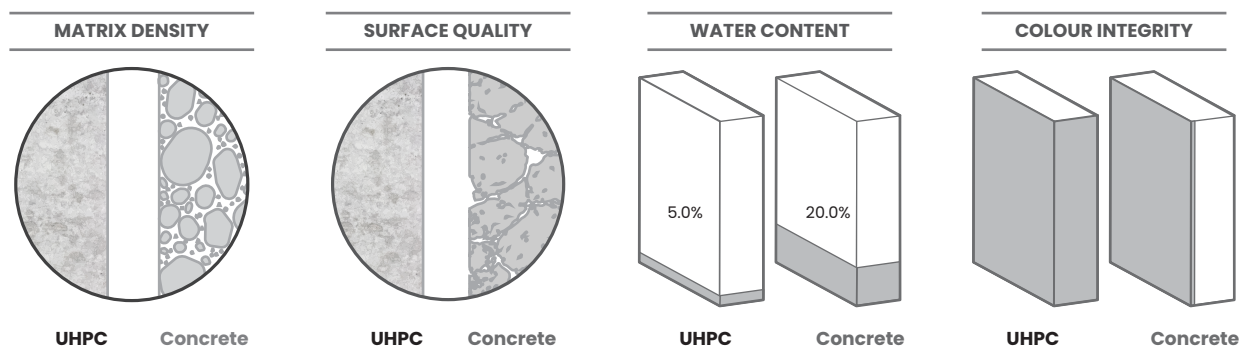
Fortekret™ ULTRA-HIGH-PERFORMANCE CONCRETE (UHPC)

Fortekret™ Ultra-High-Performance Concrete (UHPC) was developed and is manufactured in the Kingdom of Bahrain by BFG Advanced Concrete Facades. It is the only proprietary mix available in the Middle East. **Fortekret™** achieves high value compressive and flexural strength results- above 130 MPa tested to BS EN 12390-1, BS EN 12390-7 & BS EN 12390-3.

Why UHPC And Not Precast or Prestressed Concrete?

UHPC is an advanced composite material increasingly used in the construction industry due to its high mechanical strength and durability, meaning that structures have far lower maintenance requirements.

The unique combination of high compressive strength (more than 120 MPa), self-placing properties, extreme durability, flexibility, and aesthetics make UHPC a truly revolutionary construction material. These properties allow designers to exploit elegant architectural designs previously only accessible to high-strength steel or other complex materials systems.



High packing density yields excellent flexural strength that is over four times higher than regular concrete.

Fortekret™ is structurally comparable to steel rather than precast concrete, as evidenced by its original use in bridge construction.

Performance Comparison

High strength to weight ratio reduces sub-structure requirements when used as a facade or as wall panels and lower shipping and installation costs. Additionally, longer structural spans with thinner sections allow us to achieve complex forms, profiles, and geometries.

Benefits of **Fortekret™** UHPC

- Surface quality and range of pattern, texture and finish options are unmatched.
- Saturated colours are achieved with UV stable pigments integral to the mix and protected by the incredibly dense ultra-high performance concrete matrix.
- Construction time reduction.
- Reduction of workers and on-site equipment.
- It reduces labour content of on-site processes.
- Better efficiency of control during the process of production.
- Increases the quality, durability, and endurance of structures.
- Light strength to weight ratio.
- Less harmful environmental effects.
- Economical in the context of the entire project.

GLASS FIBRE REINFORCED CONCRETE (GRC)

BFG Advanced Facades is a leader in the production of high-quality GRC to meet various aesthetic, structural, and cost requirements for any architectural project.

GRC has many advantages for use as a cladding product in architecture, including:

- Can be used to create a wide variety of shapes and surface finishes
- High strength
- Lightweight and easy to handle
- Project-specific, custom-designed panel sizes mean installation is quick and cost-effective
- Durable in extreme weather conditions
- Requires minimal maintenance
- Economical, energy-efficient and environmentally friendly

Although the relative density is similar to concrete, GRC panels can be much thinner than traditional concrete panels. Making them as much as 75% lighter than similar pieces cast with conventional concrete; makes the parts easier to handle, lowers transportation costs, and reduces the foundational requirement. GRC cladding can replace non-structural precast concrete where weight and or shape may be problematic.

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High Design Flexibility

GRC can easily mould to produce any shape, detail, or texture, from rocks to fine ornamental details. GRC can be coloured with pigments, paints and natural stone facings. Moulds can be created to replicate the most complex of profiles in restoration, renovation and new construction. High Compressive, Flexural and Tensile Strength

Fibre content gives high tensile strength, while the high polymer content makes the concrete flexible and resistant to cracking. Proper reinforcing further increases objects' strength and is critical in projects where visible cracks are not tolerable.

Environmentally Friendly

Because it uses less cement than equivalent concrete and produces much lower carbon dioxide emissions during manufacture, GRC qualifies as sustainable. Emissions reductions are even more significantly enhanced if the reduced load on the superstructure and resulting economics are taken into account.

Colour and Finish



One of the defining qualities of GRC is the ability to produce it in a range of colours. We have developed twelve standard colours for the construction industry and to formulate customised colours as required. The Platinum and White colours are formulated without any pigment. All other colours contain pigments that are UV-stable and specifically engineered for use in concrete. These pigments are added during the mixing process.

UNIVERSITY OF AMSTERDAM, NETHERLANDS

Composite External and Internal Decorative Facades



Project: External and Internal Decorative Composite (FRP) Cladding

Location: University of Amsterdam, Amsterdam Science Park, Netherlands

Client: Sorba Projects, Amsterdam

Architect: Architecture Studio HH, MVSA, Rudy Uytenhaak Architectenbureau

Engineering Consultants: Rudy Uytenhaak / MVSA Architects

Main Contractor: Sorba

Handover: 2007

MANILA NINOY AQUINO INT. AIRPORT, PHILIPPINES

Composite Entrance Canopy and Soffits



Project: Composite (FRP) Entrance Canopy and Soffits
Location: Manila Ninoy Aquino International Airport, Philippines
Client: Manila Airport
Architect: Skidmore, Owings and Merrill (SOM)
Main Contractor: Tekenka Corporation
Handover: 2002

MAJLIS, DUBAI

3D UHPC Facades



Project: UHPC External Coated Cladding

Location: UAE - Dubai

Client: EXPO 2020

Architect: ASGG (Adrian Smith and Gordon Gill Architecture)

Main Contractor: Laing O'Rourke

Handover: 2020

ASPIRE TOWER, QATAR

Composite Soffits and Cladding



Project: Composite (FRP) Panelling to Soffits
Location: Aspire Tower, Al Waab, Doha, Qatar
Client: Khalifa Sport City Development Committee
Architect: Hadi Simaan, AREP
Engineering Consultants: Arup Facade Design
Main Contractor: Midmac/Six Construct
Handover: 2007

AL ISTIGHFAR MOSQUE, SINGAPORE

Composite Dome and Skirting



Project: Composite (FRP) Dome and Skirting

Location: Al-Istighfar Mosque, Pasir Ris, Singapore City

Client: Al-Istighfar Mosque, Singapore

Main Contractor: Pee Lee Construction

Handover: 1999

AL FATEH GRAND MOSQUE, BAHRAIN

Composite Dome



Project: 25m Composite (FRP) Dome
Location: Al Fateh Grand Mosque, Manama, Bahrain
Client: Ministry of Works, Bahrain
Engineering Consultants: Dar Al Handasah, Lebanon
Main Contractor: CCC
Handover: 1985

— KAFD WORLD TRADE CENTRE, SAUDI ARABIA

Composite External Cladding



Project: Large Span external composite (FRP) cladding

Location: World Trade Centre, King Abdullah Financial District, Riyadh, Saudi Arabia

Client: Al Ra'idah Investment Company

Architect: Gensler

Engineering Consultants: BuroHappold Engineering

Facade Contractor: Permasteelisa Gartner Middle East (PGME)

Handover: 2015

LONDON UNDERGROUND, UNITED KINGDOM

Composite Internal Cladding



Project: Internal CMS composite (FRP) cladding
Location: Holborn Station, London, UK
Client: London Underground Ltd / Transport for London
Engineering Consultants: QinetiQ
Main Contractor: QinetiQ
Handover: 2008

THE AVENUES MALL, KUWAIT

Composite Ceiling Cowlings



Project: Composite (FRP) Reflective Chrome Finish Ceiling Cowlings

Location: The Avenues Mall, Kuwait

Client: Al Rai Real Estate Co.

Architect: Gensler

Engineering Consultant: Pace

Main Contractor: Ahmadiyah Contracting

Handover: 2016

HHR KAEC STATION, SAUDI ARABIA

Composite Structural Primary Roofing System



Project: Composite (FRP) Structural Station Roofing System

Location: HHR KAEC Station, King Abdullah Economic City, Saudi Arabia

Client: Saudi Railways Organisation

Architect: Foster+Partners

Engineering Consultants: Dar Al Handasah and Buro Happold

Main Contractor: El Seif Engineering Contracting Co Ltd

Handover: 2015

BASRA SPORTS CITY, IRAQ

Composite External Cladding



Project: Composite (FRP) External Cladding

Location: Main Stadium, Basra Sports City, Southern Iraq

Client: Ministry of Youth and Sport, Iraq

Architect: HOK (360 Architecture)

Engineering Consultants: Thornton Tomasetti

Main Contractor: Abdullah Al-Jiburi

Handover: 2012



ESIEE, FRANCE

Composite Roof Panels



Project: Composite (FRP) Roof Panels
Location: ESIEE, Cité Descartes, Noisy-le-Grand, France
Client: AXIMA
Architect: Dominique Perrault Architecture
Handover: 2008

SHEIKH ABDULLAH AL SALEM CULTURAL CENTRE, KUWAIT

Composite Canopy



Project: Composite (FRP) Shading Canopy
Location: Sheikh Abdullah Al Salem Cultural Centre, Kuwait City
Client: Amiri Diwan, Kuwait
Architect: SSH
Engineering Consultant: SSH
Main Contractor: Al Ghanim International
Handover: 2016

NBR BUILDING MARASSI AL-BAHRAIN, BAHRAIN

GRC Feature Columns and Cladding



Project: GRC Cladding and Feature Columns

Location: Diyar Al Muharraq - Bahrain

Client: Eagle Hills Diyar Company

Architect: Dar Alhandasah

Handover: 2018

— ENI HEADQUARTERS, MILAN

GRC Cladding and UHPC Landscaping Features



Project: GRC Cladding and UHPC Landscaping Features

Location: Milan, Italy

Client: Salini Impregilo

Architect: Servizi

Scope of work: Design, Manufacture , Delivery & Project Management

Handover: Expected 2021

SABIC HEADQUARTERS BUILDING, SAUDI ARABIA

Composite and GRC Cladding and Screens



Project: Composite (FRP) Decorative Shading Panels and GRC Cladding

Location: Jubail, Saudi Arabia

Client: SABIC

Architect: Henning Larsen, Copenhagen

Main Contractor: Shapoorji Pallonji Group

Handover: Expected 2021

MAIN GATES AT KING SAUD UNIVERSITY, SAUDI ARABIA

Composite and GRC Cladding



Project: GRC and Composite (FRP) Cladding for Main University Entrance

Location: Kingdom of Saudi Arabia

Client: Salini Impregilo

Architect: Alsaif Engineering Consultants

Scope of work: Supply and Installation of GRC & GRP works

Handover: 2019

THE COURTYARD RESIDENCE BUILDING, BAHRAIN

GRC Sandwich Panel Cladding



Project: GRC External Insulated Sandwich Panel Cladding

Location: Kingdom of Bahrain

Client: Maalem Holding B.S.C.(c)

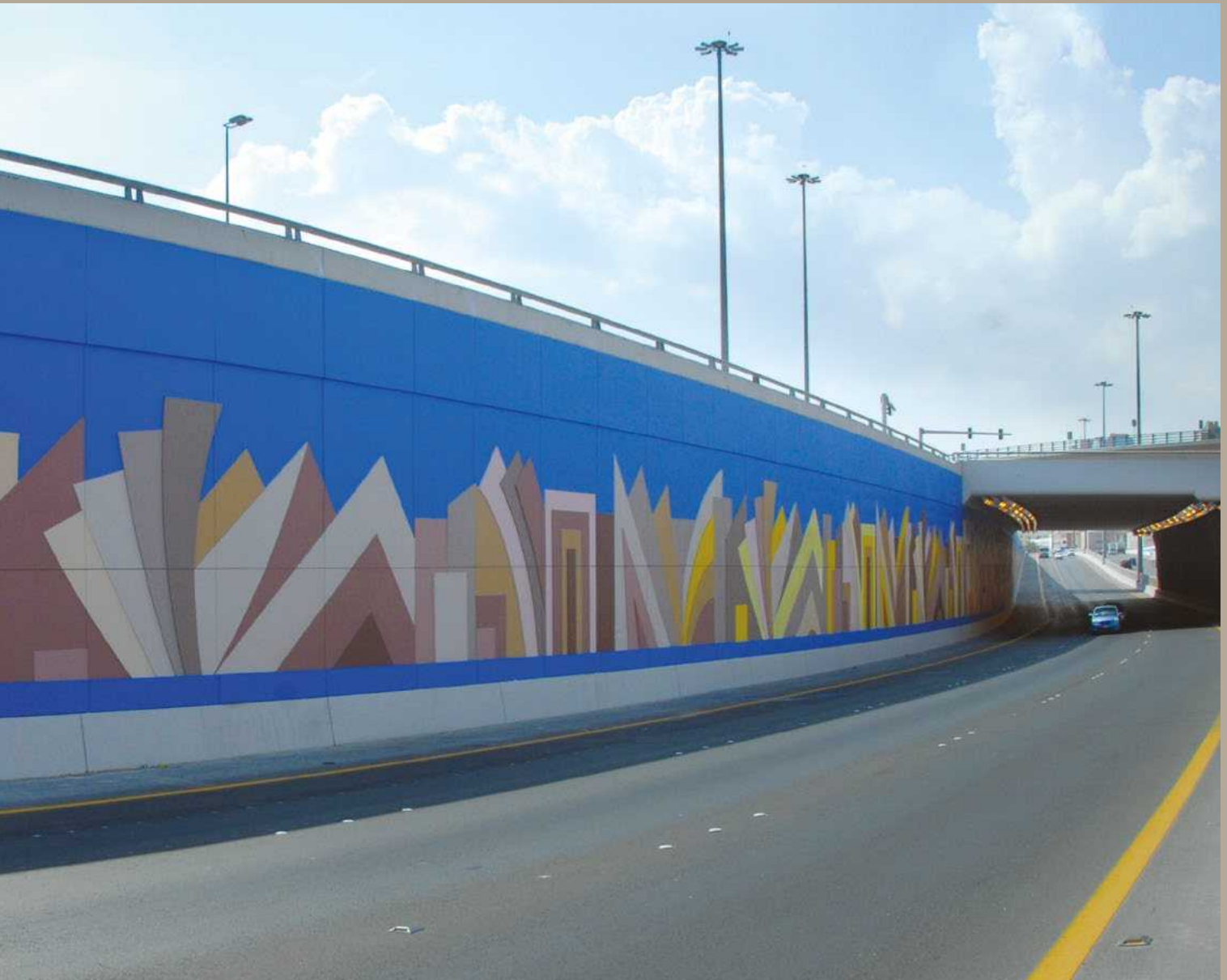
Architect: HCP Architecture & Engineering

Scope of work: Supply and Installation of GRC Sandwich Panels

Handover: 2020

MINA SALMAN UNDERPASS, BAHRAIN

Decorative GRC Cladding



Project: Painted GRC Decorative Claddings to underpass
Location: Kingdom of Bahrain
Client: Bahrain Ministry of Works
Architect/Localartist: Adnan Al-Ahmed
Contractor: Shapoorji Pallonji Group
Scope of work: Supply and Installation of GRC & GRP works
Handover: 2015

MEDINA MOSQUE AT AIRPORT, SAUDI ARABIA

Supply and Installation of GRC & GRP Cladding & Dome



Project: Composite (FRP) dome and GRC Minaret and Shading Panels

Location: Kingdom of Saudi Arabia

Client: Prince Mohammed Bin Abdulaziz International Airport

Architect : TAV (Turkey)

Scope of work: Supply and Installation of GRC & GRP Cladding & Dome

Handover: 2015

BFG Advanced Concrete Facades Products

Admired for their strength and quality, our products are able to stand rigorous industrial use, offering water resistance, heat resistance, ease of use, affordability, attractive designs, and low maintenance costs.



Architecture and Infrastructure

- Building Facades and Envelopes
- Shades & Claddings
- Roof Systems
- Interior Decorative Panels
- Column Claddings
- Screens and Partitions
- Hard Wearing Decks and Floors
- Statues and Monuments
- Modular Balconies
- Cornices and Soffits
- Fascia
- Marine Structures



Landscaping

- Patios
- Walkways
- Driveways
- Flooring/Paving
- Bollards
- Garden Lightning
- Faux Stones
- Garden Fencing
- Porches
- Balustrades
- Custom Products



Furniture and Decoratives

- Benches
- Seating
- Chairs
- Planters/Pots
- Sinks/Washbasins
- Street Lights
- Tables
- Fountains
- Custom Products



Interior Decoratives

- 3D Wall Claddings
- Columns/Capitals
- Double Sided Partition Panels
- Decorative Panels
- Countertops/Tabletops
- Fireplaces/Interior Decoratives



BFG International Product Groups

At BFG, we deliver the full life cycle of services: conceptualization, modeling, iterative design development, process engineering and structural design, material and product development, testing, sampling, prototyping and product manufacture, all the way to delivery and installation.



Architecture and Infrastructure

- Light Weight Structural Domes, Roof systems, and Suspended Ceilings.
- External Building Facades and Shading Screens
- Interior Decorative Panels.
- Modular Balconies
- Modular Bathrooms.
- High Quality 3D Formwork Moulds.



Transportation Group

- Passenger Rail Carriage Interior Systems
- Integrated Rail WC Cabins with Vacuum Flush Toilets
- Rail Car Front Ends and External Paneling
- Airport Counters and Seating Systems
- Automotive Parts and Components



Industrial Products Group

- Waste Management Systems
- Odor Containment Packages
- Protective Linings
- Long Span Structures and Tank Covers



Wind and Renewable Energy Group

- Wind Power Generator Housings
- Nacelles
- Spinners
- Root Flanges



Leisure and Recreation Group

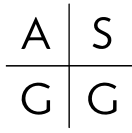
- Leisure and Commercial Marine Craft (Voyager Marine™)
- FRP Floating Dock Marina System
- Water Slides (OEM)



Environmental Systems and Technologies

- Rail lavatory Cabins
- Advanced water Filtration
- Water Treatment

Some of Our Clients



ALSTOM



BOMBARDIER



dar



GE Renewable Energy



Foster + Partners

Gensler

HITACHI



HYUNDAI
Rotem

pininfarina

pace
architecture
engineering+
planning



SIEMENS Gamesa
RENEWABLE ENERGY

SIEMENS



SOM

SSH



webuild



WHITEWATER.
EST. 1980



Moulding ideas
into Shape



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ForteKret™
New Generation Surfaces

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