



RNC<sup>TM</sup>

INFRAA

Structures For The Future

# GRC & FRP Components



## What is GRC/ GFRC?

Glass Reinforced Concrete (GRC), also referred to as Glass Fiber Reinforced Concrete (GFRC) and Fiberglass Reinforced Concrete (FRC). Since its introduction, GRC has become extremely popular as versatile building materials among the Architect and Design industry.

## Why GRC/ GFRC?

- ❏ For over 40 years, GRC has contributed significantly to technology and aesthetics of modern construction.
- ❏ GRC is a composite material made of cement, fine aggregates, water, chemical admixtures and alkali resistant (AR) glass fibres, which can be engineered to suit a wide range of applications.
- ❏ GRC is also most suitable for seismic regions as GRC tends to bend and not crack under seismic pressure.
- ❏ The design and manufacture of GRC products are covered by international standards, which have been developed in Europe, America, Asia and Australia. GRC is manufactured in over 100 countries.



01

GRC can be cast into fine details.

02

GRC offers designers unrivalled flexibility.

03

GRC mouldings & features are easy to handle and fast to erect.

04

GRC does not suffer from corrosion

05

GRC is durable against extreme weather conditions.

06

GRC is easily molded to reproduce shapes, details and textures.

07

GRC can be coloured with pigments, paints & natural stone facings.

08

GRC offers a wide variety of shapes and surface finishes

KEY FEATURES

## THE PROCESS

- ❏ Mould making as per client's CAD designs from Silicon Rubber or FRP materials.
- ❏ Sample making for client's approval for shape, finishes and sizes.
- ❏ Manufacture from mixture of white cement, grey cement, silica sand and 3 to 5% AR grade imported chopped glass fibre.
- ❏ Developing smooth, profiled, historic arts, sand finish and designed texture by use of moulds.
- ❏ Difficult forms are possible in GRC moulding easily.

# Exterior Cladding





## ADVANTAGES OF GRC

- ❑ RNC INFRAA provides Turnkey solutions with optimal satisfaction in terms of valuing clients investment.
- ❑ GRC is a replacement of heavy stone and RCC casting.
- ❑ GRC material can reduce weight compared to concrete cast or natural stone elements.
- ❑ GRC can make versatile architectural design moulds, impact resistant articles, decorative element transformation and enhancement of structure elevations.
- ❑ GRC is available in natural stone colours like, Snow White, Jaipuri Red & Dholpur Yellow tones. GRC can be painted with any colour or pigments after installation by client.
- ❑ Diversity in designs and textures can develop without limitations as per consultant or client's requirement to full fill their dreams.
- ❑ Lightweight GRC is easily shiftable and can be installed at high rise buildings.
- ❑ GRC products are value addition concept with low maintenance expenditure materials in new construction era.

Structures For The Future



**Facade Panels**



**Architectural Articles**



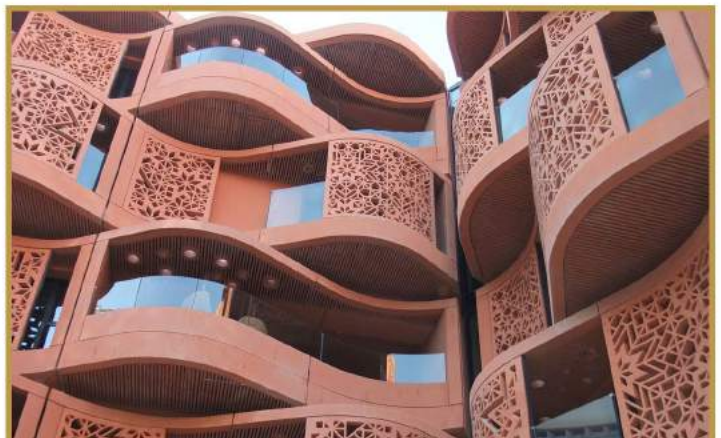
**Grills**



**Duct Pipe Covers**



**Louvers**



**Wall Claddings**



Wall Plaster Finish Panels



Partition Panels



Architectural Columns



Pillars



Cornices



Ceilings



**Jharokha**



**Gazebo**

## USAGE OF GRC

- ❑ Government Infrastructure Buildings
- ❑ Hospitals
- ❑ Schools
- ❑ Public Amenities
- ❑ Parks & Resorts
- ❑ Irrigation Construction Work
- ❑ Solar Park Working Infrastructure
- ❑ Administrative Buildings
- ❑ Housing Colonies & Buildings
- ❑ Commercial Complexes
- ❑ Shopping Malls
- ❑ Amusement Parks
- ❑ Individual Bungalows Schemes
- ❑ Metro Rail Project Buildings



# PROJECTS



**Jhalawar (Rajasthan)**



**Manilaxmi Tirth (Tarapur)**



**Nimanal Palace (Vadodara)**



**Godly palace (Mehsana)**



**Ramanuj Mansion (Kota)**



**Vintage Villa (Vadodara)**

Structures For The Future



**MPSA (Bhopal)**



**Devbhoomi (Surat)**



**AIIMS**



**Faizanul Quran  
English Medium School**



## What is FRP?

Fibreglass Reinforced Plastic (FRP) also known as Glass fibre Reinforced Polymer (GRP) is a composite material made with glass fibres and thermoset polymer matrices. Vinylester and epoxy are the most commonly used thermoset polymers in manufacturing of FRP.

## Why FRP?

- ❏ FRP is chemically anti-corrosive / resistant to a huge range of chemicals – acidic, alkalis, inorganic & organic chemicals.
- ❏ Life of FRP is more than wood, MS, GI and Aluminium. Also, FRP is light in weight from all the mentioned materials.
- ❏ FRP has lower installation and maintenance cost allowing for a lower life cycle cost.
- ❏ Fibre-reinforced plastic has greater flexural strength than timber and pound-for-pound is often stronger than steel and aluminium in the lengthwise direction.



01

Anti-Corrosive

02

Durable

03

Light Weight

04

Fire  
Retardent

05

Completely  
Maintenance  
Free

06

Non-Conductor of  
Heat and Electricity

07

UV Resistant

08

Permanent Colour

KEY FEATURES

Structures For The Future



**Roof Tile**



**Roofing Sheet**



**Rainwater Gutter**



**Base Plate**



**FRP Toilets**



**Fencing**



Facade



Duct Covering



Grills



Decorative Elements



Planter



Pillars

Structures For The Future



**Modular Office**



**Workmen Colony**



**Premium Site Offices**



**Modular Restaurants**



**PUF Panel Cabins**



**Modular Farm Houses**



Ceilings



Columns



Monuments



Statues



Baluster



Structures For The Future



**FRAC Tanks**



**Vaccume Tanks**



**Silo Storage Tanks**



**Mud Tanks**



**Acid-HCL Tanks**



**Ground Handling Equipments**

# OTHER PRODUCTS



Prefab Housing



Modular Toilet



Retail Kiosks



Security Cabins



PEB Structures



Building Extensions

# OUR PRESTIGIOUS CLIENTS





Structures For The Future

# THANK YOU

**Corporate Office :**

A-1208, Titanium Heights,  
Opposite Vodafone House, Corporate Road, Prahlad Nagar,  
Ahmedabad, Gujarat-380015 , India.

+91 97129 14383 | +91 99790 97311 | +91 99783 79797

business@rncinfra.com | sales@rncinfra.com

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