



AN ARCHITECT'S GUIDE TO GRC

 **METZ**[®]
Exclusive Australian Distributor

 **fiberbeton**

INTRODUCTION

When designing a new project, you have a wide range of building materials at your disposal. A great design and the quality of construction is highly dependent on your choice of building materials and, as such, is a very important decision.

The materials will define the overall architectural character and durability of the building.

This guide introduces you to the many advantages of choosing **glassfibre reinforced concrete**, a material suitable for both new builds and renovation projects. With this guide you will gain insight into the material properties, mounting principles, and design options.





WHAT IS GRC?

Glassfibre reinforced concrete, commonly referred to as GRC or GFRC, is a building material mainly used to exterior facade cladding and balconies.

GRC is a versatile material, suitable for both designing new and modern buildings as well as renovating existing buildings.

GRC from BB fiberbeton is made of white cement and fine aggregates and reinforced with glassfibre. GRC has four main prominent features; it is durable, lightweight, formable, and sustainable.

FORMABLE DESIGN

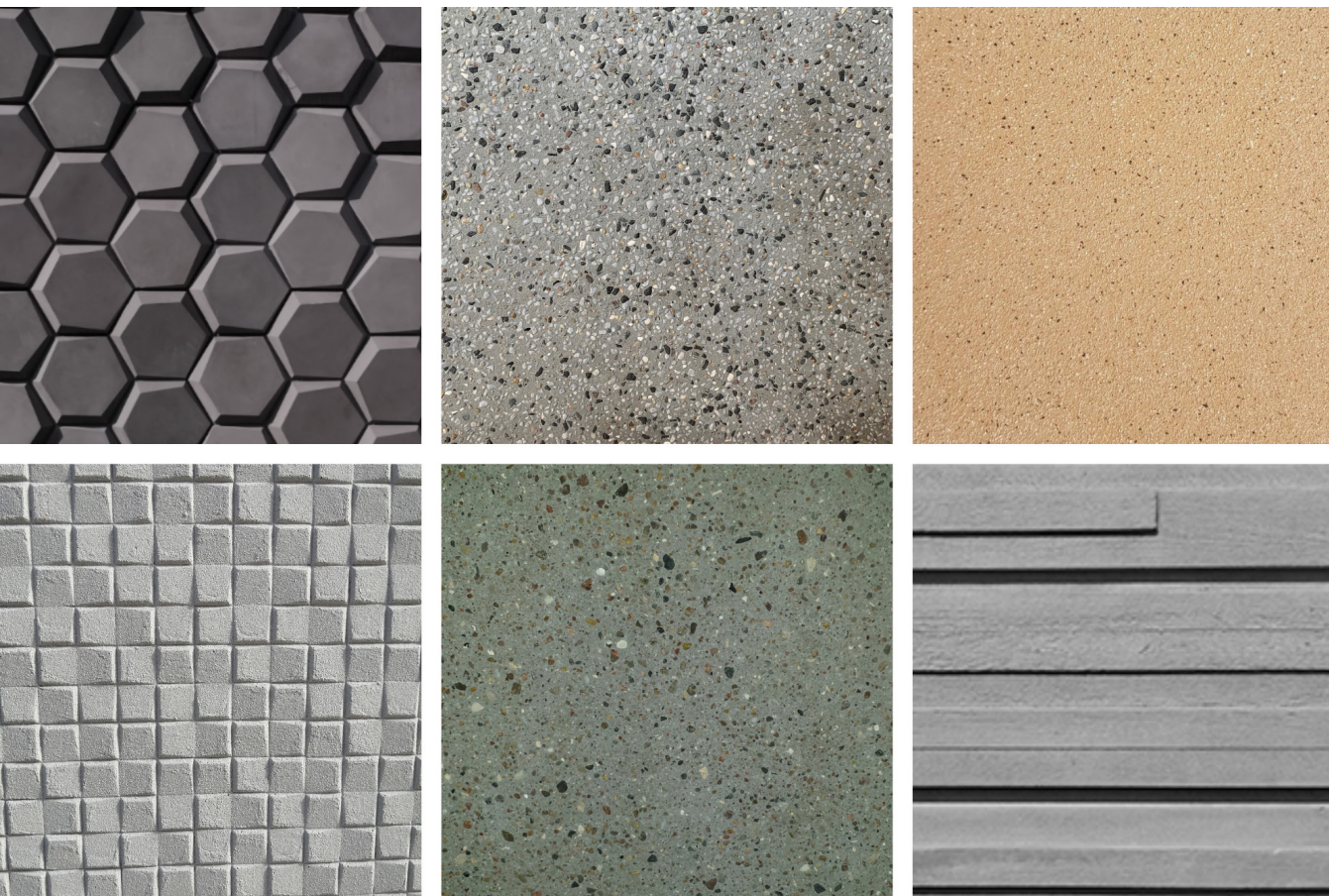
GRC is an immensely formable and shapeable material, affording you the freedom to design beautiful and exciting geometries.

GRC offers greater versatility due to its superior compressive and tensile strength and, perhaps more importantly, its flexural properties.

Using a special spray technique to cast the GRC elements, you achieve a low water/cement ratio, making it possible to create countless shapes and curves.

The formable and versatile properties of GRC makes it excellent for creating innovative and futuristic architectural designs and, also, provides the ability of recreating various style and designs needed for a restoration project.





CUSTOM-MADE SURFACE

With GRC, you have a unique possibility of customising the surface of your facade elements.

Options include creating patterns with CNC milling, Reckli patterns or as a part of the actual mould. All methods ensure that even the smallest details are shown. Furthermore, exposed aggregates can give the surface a raw expression and create texture and depth.

Additionally, you have the options of adding coloured iron oxides and other coloured aggregates to achieve a particular nuance and tone. Iron oxides are non-toxic, very coloured, and they do not fade over time.

SUSTAINABLE ARCHITECTURE

The increasing popularity of sustainable and green building has led to an equally rising demand for environmental certifications, such as LEED, BREEAM, and DGNB. Environmental certifications are known for having high and stringent requirements for building materials and, as such, your choice of building material is paramount.

A great choice for such environmental certifications is GRC. GRC has an estimated lifecycle of more than 100 years, it is weather resistant – both in extreme heat and in freezing cold, and it will neither burn, rot, rust, nor dent. The production of GRC is environmentally friendly with no toxic materials and a low consumption of energy.

Other sustainable advantages include:

- Custom-made to avoid waste on building site
- Reduced load on buildings
- Reduced cement usage per square meter





EASY & HIDDEN INSTALLATION

When working with GRC you do not need to worry about visible and unseemly mounting fixtures.

GRC elements from BB fiberbeton are manufactured with one of the following mounting systems or a combination of the same.

- Stud-frame (embedded steel frame)
- Embedded steel brackets
- FA1000®
- Embedded inserts
- Recessed holes with plugs

The various mounting principles utilise the option of a hidden installation without visible screws and with the fewest possible loose parts. The elements are easy to mount and do not require technical maintenance.

ABOUT BB FIBERBETON

At BB fiberbeton we help architects, entrepreneurs, and builders create unique, beautiful, and sustainable GRC facades and balconies. Our GRC elements are durable, lightweight, and formable, affording you an exceptional design freedom.

We are a family-owned business that have specialised in GRC since 1984 and our projects vary greatly in size. We have production locations in both Denmark and the United Kingdom and supply GRC to projects world-wide.

We are verified as a Full Member of the international trade association GRCA. Our status as a Full Member entails a third-party validation that we have sufficient resources in our plant, equipment, and labour to consistently design and manufacture high quality GRC.

