

moducrete

COMPOSITES



CLADDING SYSTEMS

LOW MAINTENANCE POLYMER COMPOSITE SYSTEMS

As the name suggests, the **moducrete** range consists of a spectrum of modular polymer composite products which, through unique design and assembly innovations, results in quick installation, reducing erection time on site, and minimizing disruptions to the work place, offering the market truly unique quality architectural cultured stone and composite cladding systems for internal and external applications.

These products fall into the following categories:

- **modubond** cladding;
- **LamPlas** polymer composite panels;
- **StructaBond** fibre reinforced polymer



COMPLEX MOULDINGS
BALLITO LIFESTYLE CNTR



PAVILLION, MOULDINGS & BALUSTRADE
ADDINGTON CHILDRENS HOSPITAL



ASHRAM IN CHATSWORTH

modubond cladding

Design

modubond is available in any of our stone colours, our plain base grey compound for hard wearing finishes, or in a satin epoxy coated finish to any colour requirement and can be produced with a satin smooth or designer textured finish, or custom made to the project or designers specifications.

From conception to CAD, from create to install, the aesthetic flexibility **modubond** is able to offer is nothing short of remarkable.

Composition

Made from primarily waste products, recycled materials, by-product materials and natural stone, and with a zero moisture absorbency, **modubond** attains 98% green-build properties whilst retaining superior compressive strength, flexural strength, acoustic damping properties, as well as outstanding thermal blanketing.

Consisting of two stone composite laminates which are bonded together with a fibre reinforced matrix, this fire rated formulation with its superior structural and aesthetic characteristics results in a low maintenance products with all the beauty and deco-enhancing characteristic synonymous to the **resocrete** range of products.

Advantages

modubond has a number of unique advantages and characteristics when comparing to other conventional cladding options. It offers light weight modular panels and systems with the benefit in aesthetics, price, ease of installation, maintenance and repair. Further to this **modubond** is impervious to water with no oxidizing, rusting, rotting or corrosion and is not susceptible to biological attack. **modubond** attains high strength and flexibility, and is UV stable.

This low maintenance composite cladding system also finishes beautifully with Marmoran and other popular modern textured paint brands. Affordable installation systems specifically designed for **modubond** are readily available. These incorporate **resocrete's** **StructaBond** support framework and angle sections, stainless steel, aluminium, nylon, FAS CUP™ cladding mounting systems and VHB structural mounting tape, all of which are already well proven in the industry.

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Finishes

modubond standard cladding panels have a smooth velvet finish and are available in an array of UV resistant natural colours, which can be custom matched. We also offer personalized designs to suite specific contract and designer requirements, in any variety of texture and granite flecked finish. Using only the best materials in the manufacture process, we ensure that our panels render to our customers a product which is stain resistant, will not fade and is timeless.



ZIM BLACK MODUBOND
MOSES MABHIDA SOCCER STADIUM
DURBAN



MODUBOND CRYSTAL WHITE PANEL
RIDGESIDE, UMHLANGA

Mounting Systems

All **modubond** cladding installation systems are subject to the design and load specifications of our qualified façade design engineer.

With the design flexibility that **modubond** offers, we have a large variety of mounting systems to offer, from the revolutionary new FAS CUP™ system by FAS TEGNIK (PTY) LTD using a hidden anchor mounting, to 3M's VHB tape onto stainless steel top-hat brackets, and for the more elaborate designs, custom manufactured **resocrete** top-hat brackets.



FAS CUP™ SYSTEM BY
FAS TEGNIK (PTY) LTD



MODUBOND ON STAINLESS
STEEL TOP-HAT
BRACKETRY SYSTEM
INCORPORATING 3M VHB
ADHESIVE TAPE

Features

- High resistance to acids, alkalis and other corrosive substances
- High resistant to biological attack
- Far lighter than stone, steel and fiber cement products
- Superior thermal properties and stability
- Outstanding weathering and UV resistance
- Outstanding heat and fire retardant qualities
- Green build rating of 98%
- Almost limitless colour and texture to choose from
- Can be epoxy coated to your specific requirements
- Available in numerous thicknesses, dimensions and moulded section designs
- Allows endless flexibility in design
- More than eight times the flexural strength of vibrated cement concrete
- Compressive strength - 100Mpa
- Sound Attenuation - 33db average
- Water absorbency - nil%
- Weathering test / 500hr - No significant change
- Abrasion resistance - Class 1A Very severe abrasion conditions
Rated for steel wheeled traffic



MODUBOND OYSTER SILICA SATIN FINISH
PORT SHEPSTONE HOSPITAL

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LamPlas Polymer Composite Panel

Falling under the **moducrete** range of **resocrete** products, the **LamPlas** polymer composite panel has a wide range of applications, from building cladding, to trench covers, from stand alone VIP pit latrine structures, to low-cost housing wall panels.

With an extremely high abrasion resistance rating (rated for steel wheeled traffic) and with high resistance to acids and alkali environments, the panels can be manufactured to withstand extremely high loading of up to a 2000 kg per square meter with very high impact resistance.

By its nature, as a moulded composite product, there is great design flexibility incorporating both texture, as well as colour, and when cast with a solid surface compound, a wide range of natural stone finishes and colours are available.

Where required, components will be reinforced using Pultruded Fibreglass Reinforcing bars which have a tensile strength 50% more than Bonnox Steel Reinforcing Bars.

General Features

- Up to 10 times the flexural strength of Vibrated Cement Concrete
- High resistance to acids, alkalis and other corrosive substances
- Resistant to biological attack
- Far lighter than aluminium, steel and fibre cement products
- 0% water absorption
- High acoustic and flexibility absorption properties
- Superior thermal properties and stability
- Outstanding weathering and UV resistance
- Rated Highly Abrasion Resistant
- Light weight - floats on water



Moulding the Future



General Material Properties

·Load bearing (unreinforced)	1300kg per sqm
·Specific Gravity	726kg/m3
·Water Absorption	0.05% by weight
·Operating Temperature	to 80 C
·C&Cl abrasion resistance rating	Class 1a
·Surface penetration during C&Cl abrasion test	Nil micron



MODULAR COKE KIOSK



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LamPlas Polymer Composite Panel



Trench Cover and Access floor Panel Applications

Made from primarily waste products, recycled materials, by-product materials and natural stone, and with a zero moisture absorbency, **moducrete** attains 98% green-build properties whilst retaining superior compressive strength, flexural strength, sound attenuation properties, and outstanding thermal blanketing.

LamPlas trench covers and Access floor panels are available in either a 20mm or 25mm thickness, with the option of fitment of a 6mm edge trim where it is required to replace steel checkered plate.

Advantages

The **moducrete LamPlas** Polymer Composite Panel has a number of unique advantages and characteristics when comparing to other conventional access flooring systems.

As a non-metallic product, it has no scrap value and being non-conductive, it is the safest alternative in electrical installation applications.

It offers light weight modular panels and systems with the benefit in aesthetics, price, ease of installation, maintenance and repair.

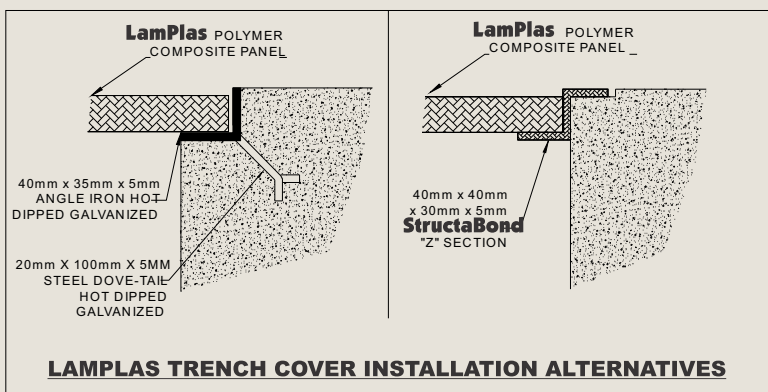
Further to this **moducrete** is impervious to water with no oxidizing, rusting, rotting or corrosion and is not susceptible to biological attack,

As shown by the tests below, the **moducrete LamPlas** Polymer Composite Panel attains high strength and flexibility, and is UV stable



MODULAR SENTRY 1500 X 2500 GUARD-HUT

LamPlas TRENCH COVER LOAD TEST



moducrete LamPlas Polymer Composite Panel Test

• Test	Sandbag Load Test
• Product	LamPlas Trench Cover
• Sample Size	600mm x 500mm
• Description	LamPlas trench cover fitted with 6mm edge trims, resting on two sides
• Load Applied	1280 kg
• Results	Test stopped at 1280 kg as load became unstable - no failure recorded

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StructaBond Fibre Reinforced Polymer Concrete

An exciting recent addition to the range of Polymer Composites is the new **StructaBond** compound.

This compound has vast applications from Architectural Beams to Cladding panels, to Bracketry and sub-structure support framework.

Through its design and innovation, this compound has been used to fabricate modular window surrounds and windows, feature mouldings on high-rise buildings and even Pavillion Structures and large architectural domes.

Used extensively when formed into angle sections and bracketry, this compound withstands shear forces of up to 3000kg per linear meter and compressive forces of 1,020 kilograms-force (kgf) per 70mm².



StructaBond beam on PermaStruct columns



StructaBond Compound Test

· Test	Compressive Load Test
· Product	Structabond Compound
· Sample Size	10.19mm x 6.94mm x 50mm
· Load Applied	1021 kilograms-force (kgf)
· Results	Sample failed at above load

Complex Design Shapes

Recent innovations in design and development has brought to fruition a Trader Stall project incorporating structural “O” rings manufactured out of the **StructaBond** compound and counter tops manufactured out of the **LamPlas** polymer composite, resulting in a truly **resocrete** product.



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