



CERAMIC COMPOSITE MATERIALS

UNLOCKING INNOVATION: DGC'S CERAMIC COMPOSITE MATERIALS IN INDUSTRIAL PLANTS

Revolutionize Your Industrial Processes with Cutting-Edge Ceramic Composite Materials

Welcome to the future of industrial efficiency and durability!

This brochure introduces you to the game-changing world of Ceramic Composite Materials and their transformative impact on industrial plants.



INTRO

TO DGC'S CERAMIC COMPOSITE MATERIALS

Ceramic composite materials represent a breakthrough in industrial material science.

By combining the strength and resilience of ceramics with the flexibility of other materials, these composites offer unparalleled performance in harsh industrial environments.



KEY ADVANTAGES

EXTREME DURABILITY

Ceramic composites exhibit exceptional resistance to wear, corrosion, and high temperatures, ensuring prolonged service life in challenging industrial settings.



LIGHT-WEIGHT DESIGN

Enjoy the benefits of reduced weight without compromising strength. Ceramic composites provide a lightweight alternative to traditional materials, facilitating easier handling and installation.



ENHANCED THERMAL STABILITY

With outstanding thermal conductivity, these materials effectively withstand extreme temperatures, making them ideal for applications in furnaces, kilns, and other high-temperature processes.



CHEMICAL RESISTANCE

Ceramic composites are inherently resistant to corrosive chemicals, ensuring longevity in environments where traditional materials may deteriorate over time.



APPLICATIONS IN INDUSTRIAL PLANTS

Ceramic composite materials find extensive applications across various sectors within industrial plants:

The diverse range of industrial applications and components, including pipe bends, pumps, valves, wear plates, slurry systems, and mixing vessels. It addresses challenges such as severe cavitation, high wear, erosion, sliding abrasion, and chemical attack. Tasks involve activities like replacing ceramic tiles, sealing leaks, rebuilding metal surfaces, repairing damaged shafts, and performing structural repairs.

These applications cut across various industries, encompassing pipelines, cyclones, secondary containments, tank roofs, and more.

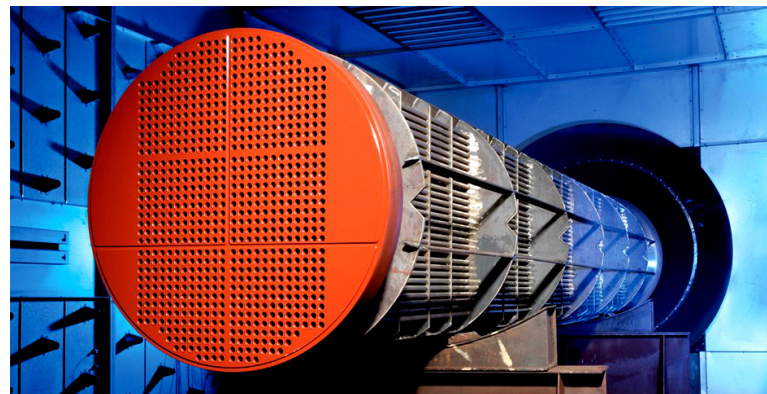
PIPELINES & DUCTS

Replace conventional materials in pipelines and ducts to enhance corrosion resistance and reduce maintenance costs.



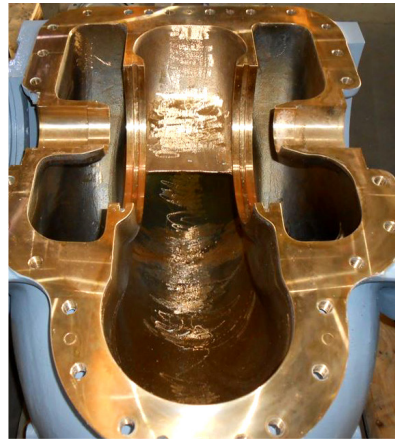
HEAT EXCHANGERS

Optimize heat transfer efficiency with ceramic composites, leading to improved performance and energy savings.



WEAR-RESISTANT COMPONENTS

Utilize these materials for machinery components subjected to abrasive wear, increasing the lifespan of critical equipment.



OTHER APPLICATIONS

- Pump Cases
- Pipe Bends
- Pump & Valves
- Wear Plates
- Slurry Systems
- Mixing Vessels
- Magnetic Separators
- Severe Cavitation
- High Wear & Erosion
- Sliding Abrasion
- Storage tanks
- Secondary Containment
- Heat Exchangers
- Mechanical Impact
- Scored Hydraulic rams
- Storage tanks
- Secondary Containment
- Heat Exchangers
- Mechanical Impact
- Rotors
- Work Benches
- Direct Impact
- Replacement of Ceramic Tiles
- Cyclones
- Crushers
- Pipelines
- Tank Roofs
- Sealing of leaks
- Girth Welds
- Hydro-Cyclones
- Engine Blocks
- Hydraulic Pistons
- Rebuild metal Surfaces
- Repair Damage Shafts
- Turbo Separators
- Pneumatic Conveyors
- Surface Levelling
- Wall-loss repairs
- Flanges
- Structural repairs
- Exhausters
- Metal Joints

WHY CHOOSE DGC'S CERAMIC COMPOSITE MATERIALS

INNOVATION FOR A SUSTAINABLE FUTURE

Reducing maintenance needs and increasing equipment lifespan contribute to a more sustainable and environmentally friendly industrial landscape.

COST-EFFICIENCY

While the initial investment may be higher, the long-term cost savings from reduced maintenance, downtime, and replacement make ceramic composites a financially sound choice.

CUSTOMIZATION OPTIONS

Tailor the properties of ceramic composite materials to meet specific industrial requirements, ensuring a perfect fit for diverse applications.



PARTNER WITH US

Join the ranks of forward-thinking industrial plants that have embraced the future. Partner with us to incorporate DGC's ceramic composite materials into your processes and unlock unparalleled efficiency, durability, and innovation.





EMBRACE THE FUTURE: TRANSFORM YOUR INDUSTRIAL PLANT WITH CERAMIC COMPOSITE MATERIALS!

For inquiries and further information, contact: sales@dgrpint.com

DICKINSON GROUP OF COMPANIES HEAD OFFICE
www.dgrpint.com

T +27 (0) 16 421 3720
F +27 (0) 16 422 1038
E sales@dgrpint.com
10 Smuts Avenue, Vereeniging, South Africa, 1930

