



**100%
FRP!**

The first fully FRP lifting bridge in the world, spanning 12m, with an InfraCore® Inside deck built by FiberCore Europe.

InfraCore® Inside is FiberCore Europe's proprietary technology to construct strong, lightweight and durable structures in fiber reinforced polymers (FRP, or composites). FRP is a well-known material, with significant advantages over steel, concrete and timber:

- Low-maintenance and long design life → beneficial Life Cycle Costs (LCC)
- Fully prefabricated → high quality and fast construction
- Lightweight → easy transport and simple foundations
- Ten times stronger than steel, more durable than wood and ten times lighter than concrete bridges
- Safe and inflammable
- 50 year warranty

Since its market introduction in 2007 in the Netherlands, InfraCore® Inside has established itself as an accepted major new construction material for infrastructure. More than 250 projects have been realised in the Netherlands, UK, USA, China, Belgium, Italy and Surinam. Our structures meet the loadings as set out in Eurocodes. Bridges are finished with an epoxy-bonded wear surface, and can be supplied in any colour. They can optionally be fitted with a FiberSmile® FRP railing system.

Advantages of InfraCore® Inside road bridges

The low self-weight of InfraCore® Inside road bridges brings a number of interesting advantages. One is that only a simple foundation is needed, often a shallow foundation suffices, such as a precast concrete slab. InfraCore® Inside bridges are easy to transport and can be installed quickly with a light crane. Also, since the bridges float, they can be transported to the project site in the water.

FRP cannot rot, is resistant to moisture and UV and does not decay over time. The material is also insensitive to fatigue. This is known from windmill blades that endure much higher stress levels, and has also been comprehensively tested at Delft University of Technology. In the tests, a sample was subjected to a loading equivalent to a design life of 150 years.

InfraCore® Inside road bridges

Max. distributed loading	6000 kg/m ²
Max. weight of vehicle	60 tonnes
Max. length per element	26 meter
Max. width per element	8 meter
Expected design life	> 100 years

InfraCore® Inside road bridges come fully prefabricated, in any colour. They are finished with an epoxy-bonded wear surface. Multiple bridge segments can be joined to create wider bridges than the dimensions indicated here. Bridges

can also be realised in hybrid with other materials, such as an InfraCore® Inside deck on a primary structure in steel or concrete. This combines the best of both materials.



Road bridge near Utrecht.



The bridge in Oosterwolde under construction. The pylons are covers to the hydraulic lifting mechanism.



Movable road bridge for 60-tonnes vehicles in Oosterwolde, the Netherlands.

InfraCore® Inside road bridges in Amersfoort, resting on a concrete substructure.



For more information please visit our website or contact us:



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