

# Bridges for generations

Non-metallic, load-bearing  
reinforcements for bridges  
without corrosion damages



## Applications

- Bridge superstructures and bridge caps
- Unrivalled for structure refurbishment and strengthening due to light weight and easy handling
- For in-situ concrete applications
- Prefabricated carbon concrete parts for hybrid and slab bridges
- Ideal for new replacement structures



## Product portfolio for bridge constructions

- solidian** GRID
- solidian** ANTICRACK
- solidian** REBAR
- solidian** REMAT



## Characteristics

### Why non-metallic reinforcement?



Thinner, filigree components possible



Sophisticated, shaped concrete components



Lightweight and easy to process



Several times higher tensile strength than steel



Conserves resources because less cement, aggregates and water are used



Freedom of design for architects and planners



More economical due to lower consumption of materials



Less concrete, less weight, fewer resources



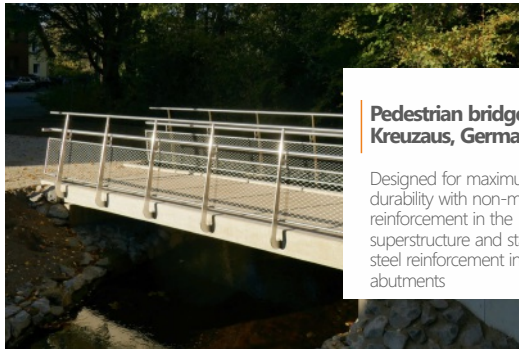
Corrosion-free, chloride- and media-resistant



Durability and long life cycle



For concrete with non-metallic reinforcement, the usual steel reinforcement is replaced by grid structures made of carbon or glass fibres. These do not corrode, why the concrete cover can be smaller, making the concrete components significantly lighter and thinner. This saves up to 50% of resources (cement, aggregates, water) and up to 30% of CO<sub>2</sub> emissions, sometimes even more depending on the design. This represents huge potential for how we can make better use of our resources and helps us to build in a more climate-neutral way for future generations.



**Pedestrian bridge Kreuzaus, Germany**

Designed for maximum durability with non-metallic reinforcement in the superstructure and stainless steel reinforcement in the abutments

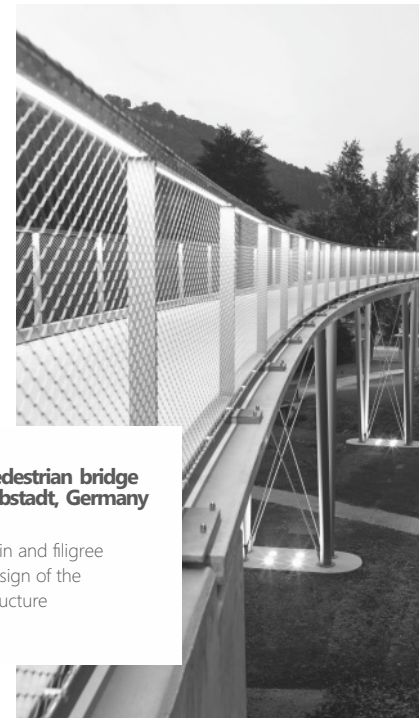


**Pedestrian bridge Chemnitz, Germany**

Special geometry of the superstructure with curves

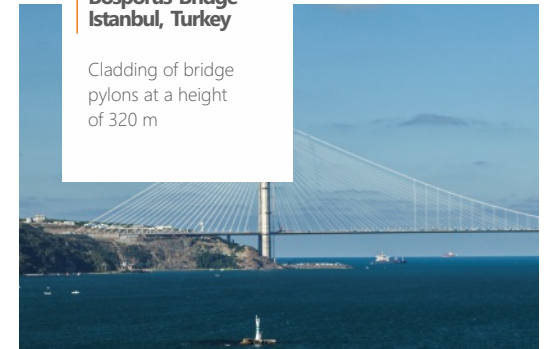


Carbon concrete is used for the renewal of a large bridge cap



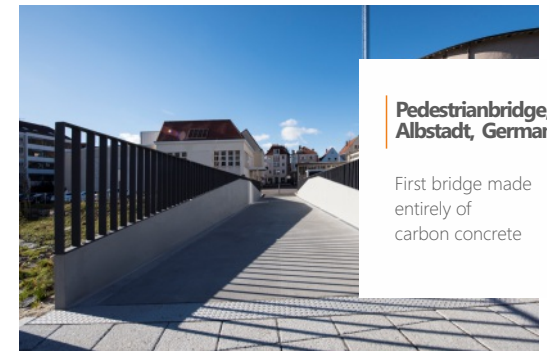
**Pedestrian bridge Albstadt, Germany**

Thin and filigree design of the structure



**Bosphorus Bridge Istanbul, Turkey**

Cladding of bridge pylons at a height of 320 m



**Pedestrian bridge, Albstadt, Germany**

First bridge made entirely of carbon concrete



**Rhine footbridge Schwaderloch, Switzerland**

Complete renewal of the walkway surface as an in-situ concrete application



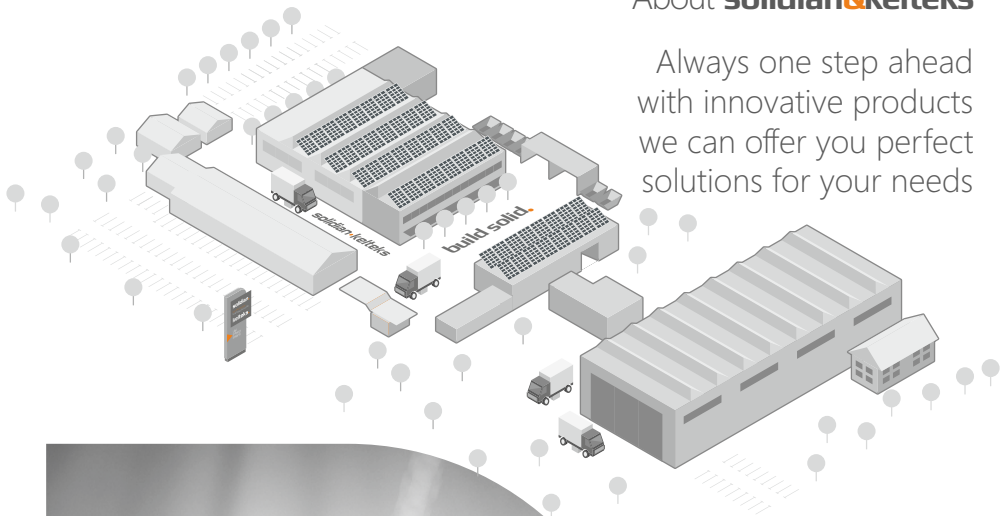
**Pedestrian bridges Remstal, Germany**

Sustainable material combination of wood and carbon



## About **solidian&kelteks**

Always one step ahead with innovative products we can offer you perfect solutions for your needs



solidian&kelteks has made a name for itself as a leading company that provides a wide range of solutions to improve construction structure.

We made a commitment to clients to provide them with customer service, technical support and being the leader in providing global innovative fiber material solutions. We use advanced technologies to produce special solutions according to your needs. Our functional grids are used to optimize product and processing properties in a wide variety of applications – including concretes, UHPC, cement-based mortars, adhesives, and dry-mix compounds.

**build solid.**



CERTIFIED  
ISO 9001  
ISO 14001



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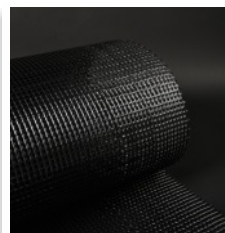
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## Other Products

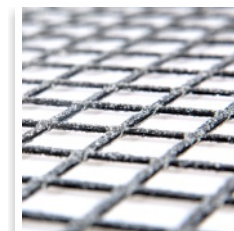


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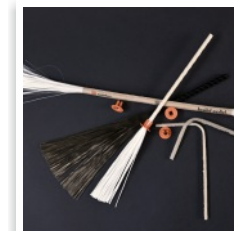
**solidian eGRID**

Specially developed flexible grids in combination with electro conductive coatings provide high tensile strength and outstanding electro conductive properties. **solidian eGRID** is now also available with different conductive surface treatments for special applications in which electrical conductivity is important.



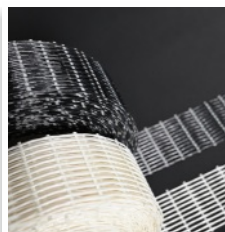
**solidian Anticrack**

is a further development of our reinforcement **solidian GRID**, which functions specifically as crack-eliminating reinforcement. The carbon reinforcement can be laid close to the surface and thus has a particularly positive influence on crack formation in concrete components.



**solidian CONNECTOR**

Non-corrosive Carbon, Basalt, or AR-Glass connector with Single or Double Open End suitable for construction reinforcement in masonry, arches and vaults. Perfect for reinforcement of buildings in earthquake-affected areas.



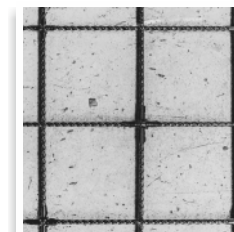
**solidian Brksy**

High-tech, non-Corrosive, AR glass or Carbon fiber reinforcement brick mesh on a roll for efficient crack control specially designed for any wall width.



**solidian REBAR**

The rod-shaped reinforcement **solidian REBAR** is combining high-strength fibers with extreme resistant resins. **solidian REBAR** is the right choice where ever high loads occur and components are permanently exposed to aggressive environmental influences.



**solidian REMAT**

The **solidian REMAT** transfers all the outstanding properties of our bar-shaped reinforcements, the **solidian REBAR**, to the mesh format. The result is robust and walkable mats for more efficient handling on the construction site.