

Polymer concrete

Experience and competence for sophisticated components in civil engineering



Watec is proficient in polymer concrete

Polymerbeton



*Polymer concrete is a perfect material for civil engineering purposes: Its high strengths enable the construction of very slim components; its **chemical stability** makes it resistant to aggressive media. The non-porous and hydraulically **smooth surface ensures that it is 100% corrosion-free**. Constructions made of polymer concrete are characterised by longevity and ensure an investment's sustainability.*

*Even with rather small lot sizes, cast polymer concrete enables the **economic production** of individual and optimised components that are adapted to the specific purpose.*

Due to its customer orientation, innovation potential and sound quality, Watec Polymer concrete stands out from its competitors.

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Today, Watec is able to refer to a broad range of innovative, **well-established solutions** of polymer concrete that are produced in the modern, high-performance production plant of Aco–Passavant in the town of Gunzgen, in the Swiss canton Solothurn.

Watec Polymer concrete basically consists of fire-dried quartz sand and gravel that are bound in a high-grade polyester resin system. The computer-assisted control of the mixing and casting plant makes it possible to individually optimise the formula and particle size for each component.

The casting method also makes it possible to **realise complicated component geometries**. The quick curing allows for flexibility with regard to customer requirements. Thus, a period of only 4 to 6 weeks is needed from the engineering drawing to the mounting of the initial elements!

The finished components of polymer concrete from Fritschi are extremely **pressure- and bending-resistant**, display great **longitudinal strength**, are **dimensionally stable, corrosion-proof, chemical-resistant**, highly **abrasion-resistant** and have a non-porous and **hydraulically smooth** surface.

The excellent characteristics of the materials enable the **construction of slim, homogenous construction elements** and positively influence the building site logistics, the laying performance and the lifetime of the building.

Polymer concrete can be excellently **processed with conventional tools** (cutting, drilling, grinding, etc.) and tied positively by means of a two-component epoxy adhesive.

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Quality

Production is subject to an ongoing external quality control; the entire company Aco Passavant AG is certified according to the ISO 9001:2000 standard which, thus, documents its excellent qualifications as a reliable cooperation partner for *sophisticated projects*.

Fields of application

Watec offers a *broad range* of well-established solutions for *civil engineering*: partial and full facings for the new development and the

reconstruction of accessible sewers, standard and custom-made manholes, split gutter systems for tunnel construction, special tanks, separator systems, etc.

However, this is by no means the entire field of application of polymer concrete: If a project makes highest demands and conventional materials encounter limiting factors, polymer concrete from Fritschi is often able to offer an *efficient approach* to a given problem – from idea to implementation!

Technical characteristics of Watec Polymer concrete:

Desity : 2.100 – 2.200 kg/m³

Tensile strength : 20 – 25 N/mm²

Pressure resistance: 100 – 120 N/mm²

E modulus : 20 – 25 kN/mm²

Capillarity : 0,1 Vol %

De-icing salt WFT-L : > 100%

Resistance to chemicals : pH 2 – 13

Resistance to wear / Böhme Volume loss, average value : 7 cm³ / 50 cm



Contact us at office@watec.at, we appreciate your interest!

Further information can be found at www.polymerbeton.eu

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