



CONCRETE

Sika[®] WT-200 P

WATER RESISTING AND CRYSTALLINE WATERPROOFING CONCRETE ADMIXTURE

BUILDING TRUST



EXCELLENCE IN WATERPROOF CONCRETE WITH Sika® WT-200 P

FEATURES OF SIKA WT-200 P

The addition of a water resisting admixtures is one measure to improve the impermeability of the concrete. The active components in Sika WT-200 P form non-soluble materials throughout the pore and capillary structure of the concrete, protecting the concrete against the ingress of water and other deleterious substances and contributing to a waterproofing matrix. In addition, the special formula and ingredients of Sika WT-200 P enhances the self-healing properties of concrete and will improve the ability to heal concrete cracks and enhance durability.

TECHNOLOGY

Impermeability of concrete against water is determined by the impermeability of the binder matrix, i.e. capillary porosity. These capillaries are the voids created by the excess water in the concrete, typically added to improve the workability of the concrete, but which is not used for the chemical reaction for hardening or strength. These pores are the potential migratory paths for water through the concrete. Therefore concrete can be described as a porous material that allows the passage of water through a structure of capillary pores.

BENEFITS OF SIKA WT-200 P

The use of Sika WT-200 P in waterproof concrete results in the following advantages:

- Increase in service life of the construction
- Significantly improved durability and sustainability of the hardened concrete
- Ensured watertightness without other expensive measures
- Reduced maintenance costs
- Sika WT-200 P additionally enhances the self-healing properties of concrete and promotes the ability to heal concrete cracks
- Non-toxic - Potable water approved (AS/NZS 4020:2005)
- Permanent

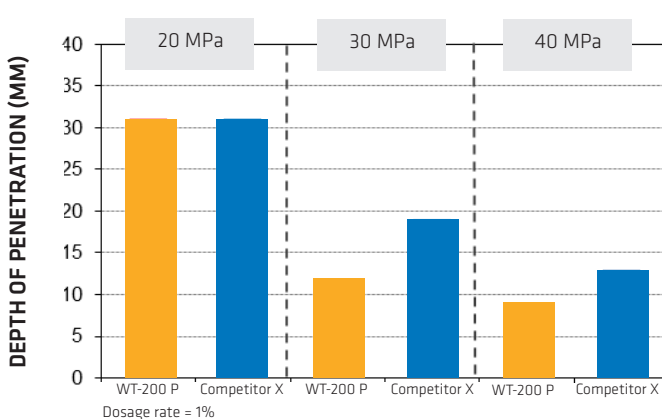
Keeping water OUT

Basements
Habitable basements
Parking structures
Tunnels
Utility/plant rooms
Precast components
Foundations

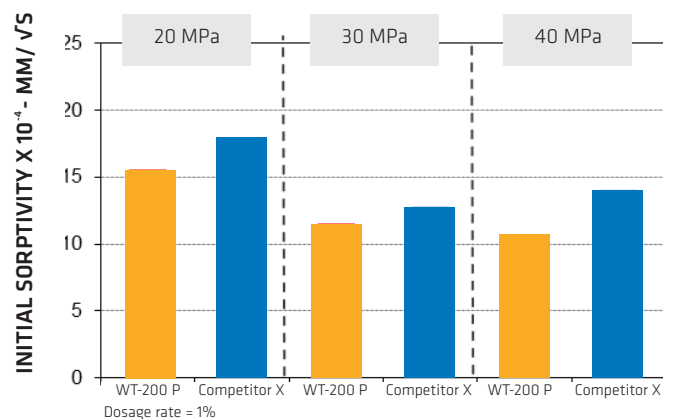
Keeping water IN

Swimming pools
Water retaining structures
Dams
Waste water treatment structures
Water structures
Underground vaults
Secondary containment

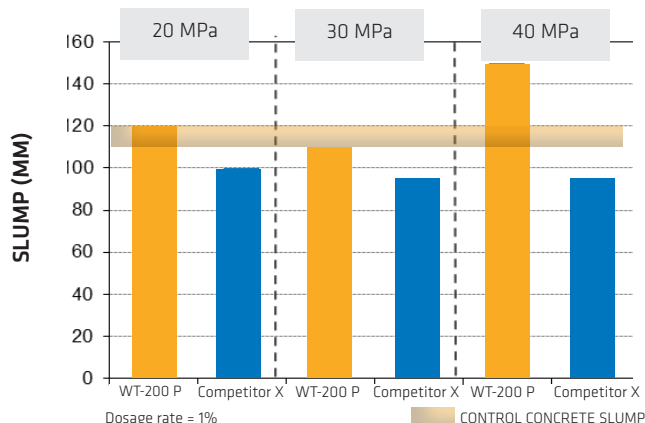
DEPTH OF WATER PENETRATION UNDER HYDROSTATIC PRESSURE (EN 12390-8)



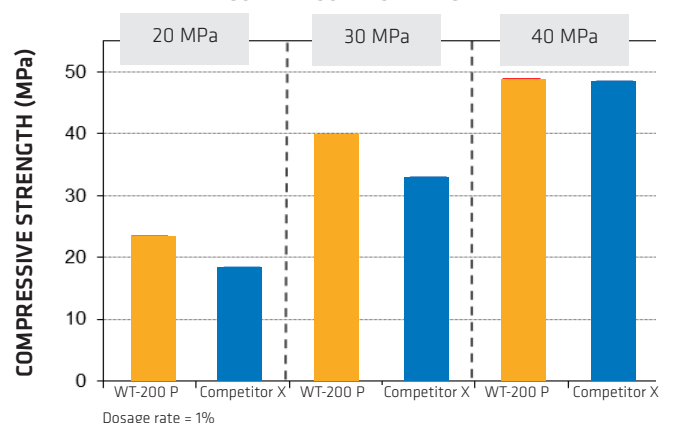
SORPTIVITY (ASTM C1585)



SLUMP



COMPRESSIVE STRENGTH



REQUIREMENTS

The water impermeability of a construction is determined by fulfillment of the decisive requirements regarding limitation of water permeability through the concrete. With the use of Sika WT-200 P the

- Water penetration depth
- Water conductivity
- Water absorption
- Self-healing properties of a concrete can be positively enhanced.

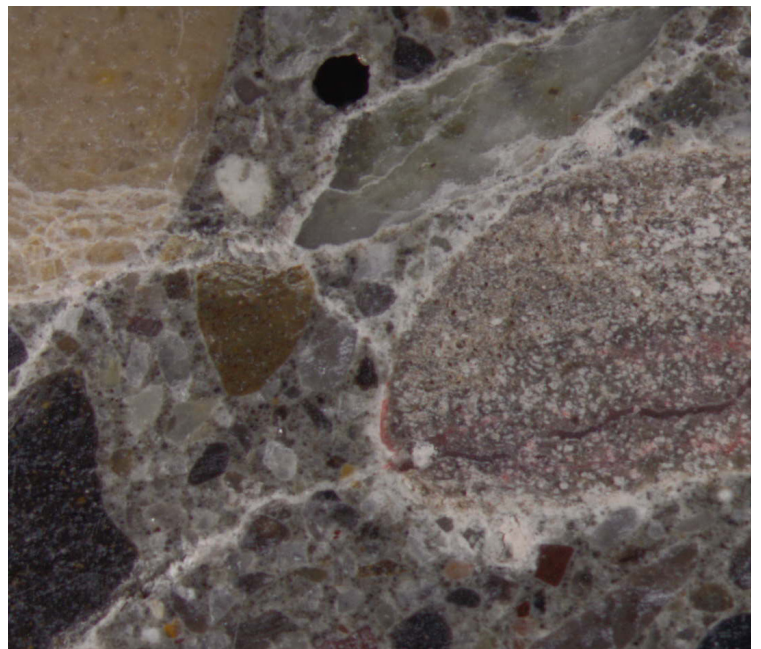
SIKA SOLUTIONS FOR WATERTIGHT CONCRETE SYSTEM

The Sika Watertight Concrete System offers a comprehensive solution for watertight structures. The system consists of concrete that has been specially modified with Sika admixtures to produce waterproof concrete; and carefully selected waterstops for construction and movement joints. Watertight concrete structures can be designed to keep water in or out or both. The need to maximize design flexibility has led clients and specifiers to look below ground as an alternative, whether for basement parking or a habitable environment.

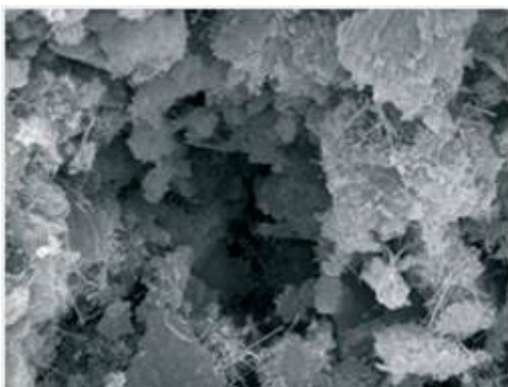
STRUCTURES AND APPLICATIONS

The Sika Watertight Concrete System can be used for all types of below-ground structures, including habitable basements, car parks and areas for business use. As with all below-ground structures, adequate ventilation and air conditioning should be appropriate to the intended use.

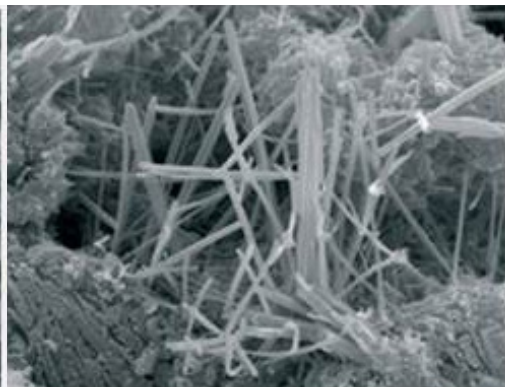
According to the EN 12390-8 the waterpenetration depth tests has to be conducted over 72 hours with a water pressure of 5 bar. In order to gain knowledge after these three days the same tests have been performed with extended testing time up to 28 days.



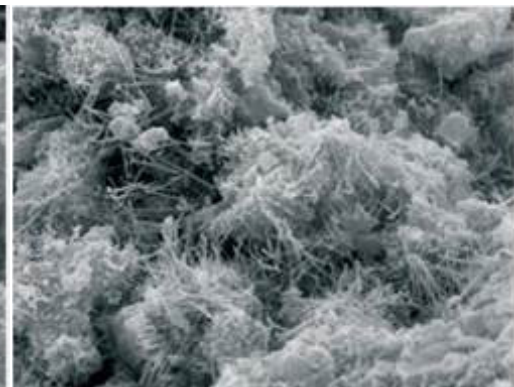
Crack sealed with the use of Sika WT-200 P



Clearly visible void



Crystalline growth



Sealed void



T4 Carpark, Tullamarine Airport, Melbourne

FOR MORE CONCRETE INFORMATION: AUS.SIKA.COM

WHO WE ARE

Sika AG, Switzerland, is a globally active speciality chemicals company. Sika supplies the building and construction industry as well as manufacturing industries (automotive, bus, truck, rail, solar and wind power plants, façades). Sika is a leader in processing materials used in sealing, bonding, damping, reinforcing and protecting loadbearing structures. Sika's product lines feature high quality concrete admixtures, specialty mortars, sealants and adhesives, damping and reinforcing materials, structural strengthening systems, industrial flooring as well as roofing and waterproofing systems.

Our most current General Sales Conditions shall apply.
Please consult the Data Sheet prior to any use and processing.



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