

# FORTISOL® 1K

Serial Number 0601

## ***Universal single-component sealing compound for waterproofing and insulation protection of building structures form concrete and steel***

### ***Features:***

**FORTISOL 1K** is a single waterproof sealing material that forms, when mixed with water and applied on a surface, a seamless waterproofing hardy layer with excellent adhesion to concrete. The hardened layer of waterproofing material prevents the penetration of ground water, even when the direction of pressure is to the surface. **FORTISOL 1K** protects structures from aggressive atmospheric influences, preventing the penetration of CO<sub>2</sub> and SO<sub>2</sub> into the concrete structures of bridges, canals and water tunnels and underground structures.

### ***Usage:***

**FORTISOL 1K** is intended for interior and exterior insulation of foundations, basements and other structures in both new and old buildings. It can be used for protection of steel, concrete and reinforced concrete structures from water and atmospheric influences. It can be used for insulation materials under the tile in bathrooms, swimming pools and water tanks and for applications on concrete surfaces, which must withstand continuous exposure to water. (Not applicable to applications on metal surfaces). It is suitable as a bonding agent for additional concrete work. **FORTISOL 1K** can be applied to damp and not fully mature concrete.

### ***Technical data:***

Mixing ratio with water (wt. parts)	100 parts FORTISOL 1K: 20 parts water (15 kg FORTISOL 1K : 3 kg water)
Mixing time	5 minutes (mixer 300 rpm/min.)
Processing time	min. 60 minutes
Processing temperature	5 °C to 30 °C
Frost resistance	min. 25 cycles
Water resistance	0,0 l/m <sup>2</sup> per hour
Surface adhesion	1,3 MPa (concrete, ceramic tiles)
Tensile strength	1,2 MPa
Compressive strength	25 MPa
Elongation	max. 25 %

### ***Consumption:***

- 1,0–1,5 kg/m<sup>2</sup> in non-pressure insulation (at least 2 layers)
- 2,0–3,0 kg/m<sup>2</sup> with insulation up to 1m below ground level to ground moisture and rain water (3 layers)
- 4,0–6,0 kg/m<sup>2</sup> with insulation from 1 m to 50 m below ground level to water pressure acting on the surface (4 layers)

### ***Shades:***

gray

### ***Packaging:***

5 kg plastic container, 15 kg paper bags with PE liner

**Storage:**

In a dry environment in original packaging at 5 °C to 30 °C. It must not freeze!

**Surface preparation:**

The surface must be as written below for **FORTISOL 1K**:

- smooth (tensile strength perpendicular to the surface at least 1,5 MPa)
- cleaned from loose particles and grease (**ETERNAL odmašťovač** concentrate solution or other suitable detergent)
- repaired (repair damaged places, potholes, joints, etc.), Materials which are suitable for repairing – **FORTE vyrovnávací hmota, FORTE opravný beton**
- damp, (not wet) or primed with **FORTE penetral**
- highly polished surfaces are recommended to be roughened (blasting, grinding)

**Repairing the surface:**

- gaps and unevenness on the surface must be repaired by **FORTE vyrovnávací hmota, FORTE opravný beton**, or cement mortar. The surface must allow for continuous application of coatings.
- water leaks must be stopped before the application of **FORTISOL 1K** by convenient sealant. Following sealing, it is appropriate to ensure that these places are reinforced with fiberglass material pressed into **FORTISOL 1K**.
- the corners and edges of the walls must be reinforced with fiberglass cloth or use a **flexible sealing strip FORTE** into the **FORTISOL 1K**, connecting the floor to the wall with cement mortar filler and reinforced with fiberglass or use a **flexible sealing strip FORTE**.

**Application:**

Pour the required amount of water into a clean container, while slowly stirring sprinkle **FORTISOL 1K**. The ratio of mixing loose materials with water is 100 wt. parts of bulk solids to 20 wt. parts of water. You need 3 kg of water per one 15 kg pack of **FORTISOL 1K**. It is recommended to prepare only as much material as can be processed within one hour from mixing. **FORTISOL 1K** mixes perfectly with water, preferably with an electric drill with a mixer to eliminate lumps and froth. Mix for at least 5 minutes and then after 5 additional minutes mix briefly again. Apply with suitable type of brush or stainless-steel trowel on the prepared and moistened (but not wet) surface. In the event of priming with **FORTE penetral**, **FORTISOL 1K** can be applied after the first 2 hours of priming. Apply at least two layers in thickness from 0,5 to 1,0 mm, which corresponds to consumption of 1,0 to 1,5 kg/m<sup>2</sup>. A break between the layers is normally 4 hours (the mass is dried but not set). During the setting, the compound must not come into contact with water.

**Warning:**

Insulation material made with **FORTISOL 1K** must be protected against mechanical damage and must not come into contact with aggressive solvents. Tools should be washed with water after usage. After setting, tools can be cleaned mechanically.

**Certification:**

TZÚS Prague Authorized Person No. 204

**Waste disposal:**

Described on safety data sheet of the product.

***Safety and hygiene at work:***

According to the law, the product is classified as health hazard. Causes serious eye damage. May cause respiratory irritation. Causes skin irritation. May cause an allergic skin reaction. Avoid breathing dust. Wear protective gloves/protective clothing/eye protection/face protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and possible. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Dispose of contents/container by incineration in an incinerator or disposal of hazardous waste in landfills for hazardous waste. Other details are on the Safety data sheet of the product.