

Fields of Application

In the mining industry:

- Hardening, strengthening and stabilizing rock mass and coal (roofs, floors, side walls and faces of the workings);
- Sealing workings against gas and water leakage and migration;
- Fixing bolts in the injection method;
- Anchoring workings and tunnels.

Can be used in poorly and heavily loose, damp or heavily flooded rocks and coal.

In the construction industry and tunnelling technology, to perform other works where materials with such parameters need to be used.

Advantages

Very good adhesion to mineral dry and wet grounds.

Good penetration properties owing to low viscosity.

Short reaction and setting time, fast strength gain.

The application of the adhesive does not affect the readings of the mine atmosphere sensors.

Strong inhibitor of the coal oxidizing process (class 4 in the 5 grade classification of the Central Mining Institute). Prolongs the coal self-heating process.

Reaction temperature below 100°C.

After setting, water resistant and does not undergo ageing.

Has anti-corrosive properties; slows down the corrosion process of metal products.

Product characteristics

Verpensin®: Two-component organic mineral adhesive. Both components are liquid.

Verpensin® A: Sodium water glass with additives.

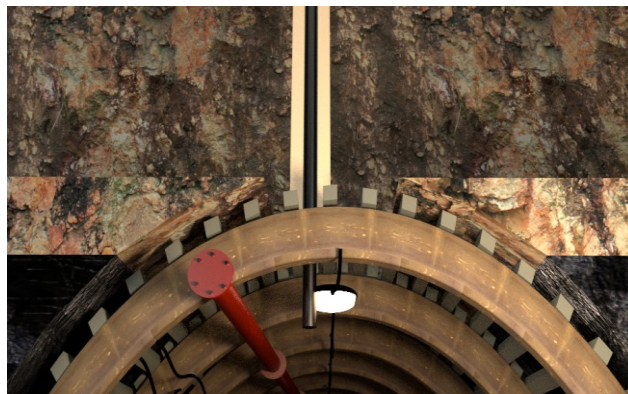
Verpensin® B: Isocyanate with additives.

Compression strength ≥ 55 MPa,

Flexural strength ≥ 15 MPa,

Foaming index: 1.0,

Oxygen index – 35.9 %,



Method of use:

The application of the adhesive involves mixing both components Verpensin®A and Verpensin®B in the application site, in a proper pumping engine, in the proportion of 1:1 and pumping to the holes made in the rock mass. Following a reaction, a product is made, adhesive, that does not foam and sets rapidly.

Product durability and storage:

Supplied in canister-type plastic or metal containers or in barrels. Each component in a separate container. Store in storage facilities intended for chemical products. Store from 10°C to 40°C. The guaranteed durability is 6 months of the manufacture date on condition that the product is stored according to the instructions.

Information on safe use:

It meets hygienic requirements and the requirements of the Polish and European Union laws on marketing, also for materials intended for use in underground workings of mining companies, in non-methane and methane spaces included in the explosion risk "a", "b" or "c" degree and dust coal explosion risk class A or B.

The components are not hazardous materials within the meaning of the transport regulations

Verpensin B: RID/ADR, IMDG, ICAO/IATA.

Verpensin A: RID/ADR, ADN, ADNR (tanker vessel only), IMDG, IATA.