

### Fields of Application

In the mining industry:

- To fill and seal ventilation and insulation stoppings;
- To fill cribs and gaps behind the double timber;
- To fill roofs and side walls in workings;
- To insulate workings and active and inactive headings;
- To fill gaps and cracks in the rock mass;
- To fill plastic sleeves and bags;
- To pump behind the fabric of the filling;
- To provide thermal insulation.
- To deactivate the coal surface in order to reduce its tendency to spontaneous combustion.

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

### Advantages

High yield owing to 25-fold foaming  
Durability of good sealing properties even after compressing to 90%.  
Foam incombustibility.  
The application of the product does not affect the readings of the mine atmosphere sensors.

### Product characteristics

Two-component urea-formaldehyde foam.  
Resin solution: liquid urea and formaldehyde resin solution with additives and modifiers;  
Foaming solution: phosphoric acid aqueous solution with an addition of a surface-active agent.

To obtain 1m<sup>3</sup> of the foam, normally 20 liters of the resin solution and 20 liters of the foaming solution are used. Gelling time about 30 ÷ 60 sec.

Type:	Izopiana® P	Izopiana® P superlekka	Izopiana® P antypropiagogeniczna
<b>Properties of foam:</b>	Durability of the ready-made foam in headings is 1 year.	Durability of the ready-made foam in headings is 6 months.	Very strong inhibitor of the coal oxidizing process (class V in the 5 grade classification of the Central Mining Institute). Stops the coal self-heating process.



### Method of use:

In the application site, mix both components normally in the 1:1 proportion by volume in a pumping engine using compressed air and pump to the space to be filled.

### Product durability and storage:

Store in dry and airy rooms that are adapted for such materials. Recommended storage temperature for the components +10°C+25°C.

Resin solution: 2 months from the production date;

Foaming solution: 12 months from the production date;  
on condition that it is stored according to the instructions.

Container such as a can – 25 dm<sup>3</sup> (or another to be agreed) made of plastic or a metal container (except for the foaming solution).

### 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.

Both components are not hazardous materials within the meaning of the RID/ADR, IMDG, ICAO/IATA transport regulations.