



INNOVATIVE ECOLOGICAL SOLID FUEL FOR



BLUECOAL
BŁĘKITNY WĘGIEL

URBAN ECONOMY

Low stack emission

is caused by poisonous air pollutants generated mainly in residential heating systems.

Sources:

- redundant and inefficient heating devices,
- poor quality of fired solid fuels,
- firing of wastes in residential boilers,
- poor condition of boiler plants.

Effects:

- high concentration of pollutants in the air,
- respiratory and circulatory systems diseases,
- liver damage, allergies,
- death rate increase in areas of high emission indicators.

Solutions:

- modernization of heating devices,
- **use of ecological fuels,**
- thermomodernization of buildings,
- information campaign in media raising the ecological awareness of residents.

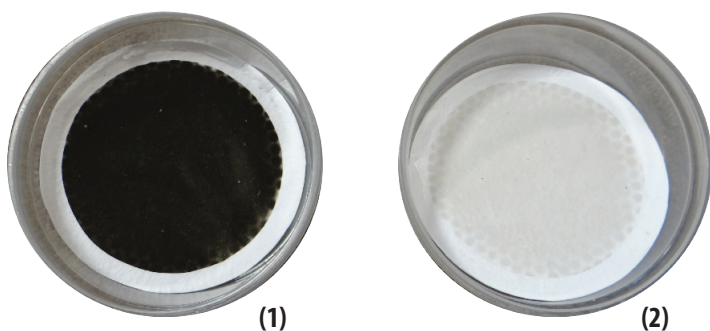
Institute for Chemical Processing of Coal as the only research centre in Poland, is involved in development of technology of low emission solid fuel, which will assure the reduction of pollutants emitted by residential heating systems.

Within Generator of Ecological Concepts GEKON the Institute runs the project on the innovative, black coal based fuel. The application of the developed fuel in currently used residential heating devices (central heating boilers, stoves, kitchen stoves, etc.) will significantly decrease the emission of pollutants to the atmosphere. The final product trade name is "Blue Coal". The use of the fuel in residential heating systems decreases by several times the emission of c.a. PM₁₀, SO₂ and B(a)P, significantly reducing the low stack emission load to the environment.

Due to the engagement and support of Zabrze Municipal Council, in 2014/2015 heating season the Institute run a preliminary pilot program. Low carbon properties of the novel fuel applied to various heating devices operated by Zabrze residents were confirmed.

"Blue coal" advantages:

- easy to ignite,
- effective, stable combustion,
- problemless collection of ashes (amount and quality),
- significantly reduced emission of contaminants to air.



The dust collected during combustion of unit amount of
(1) black coal (2) „Blue Coal”

Measuring site at an external object



„Blue Coal”



Emission results of combustion of conventional fuel
and smokeless fuel „Blue coal”

