

### Łukasiewicz Research Network - Institute of Ceramics and Building Materials

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#### PROCESS ENGINEERING RESEARCH GROUP

# Development and diagnosis of solutions to support reducing the environmental impact of production processes:

- Determined environmental characteristics of products
  life cycle analysis, preparation of Type III
  Environmental Product Declarations and carbon footprint report,
- identification of thermal and flow processesIn building materials technologies, energy and heat engineering,
- technological analysis of the operation of the clinker firing plant (firing, cooling, milling),
- rationalization of raw material and fuel managementin the building materials industry,
- Research in reducing the environmental impact of industrial installations,
- Performing technology audits in the building materials industry.

## Developing solutions to support the mineral building materials industry's transformation toward decarbonization:

- Usage of alternative fuels in the production processes of building materials, in the energyand heating industry.
- recovery of low-temperature waste heatin industrial processes,
- use of renewable energy sources based on agri-food waste and biomass in technological processes,
- development of ways to produce and manage biocarbon.

