



Application and technology

(Geopolymers in semi-industrial and industrial production)



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Wall facing



Imitation of slate clay

- casted and vibrated in the plastic molds
- thickness of 30 mm

Tiles in form and color of bricks

- tamped technology
- thickness 12 mm



Wall tiles



Imitation of sandstone

- casted and vibrated in the molds
- size 500x250, thickness 18mm
- finished by steel blasting

Polishing plates

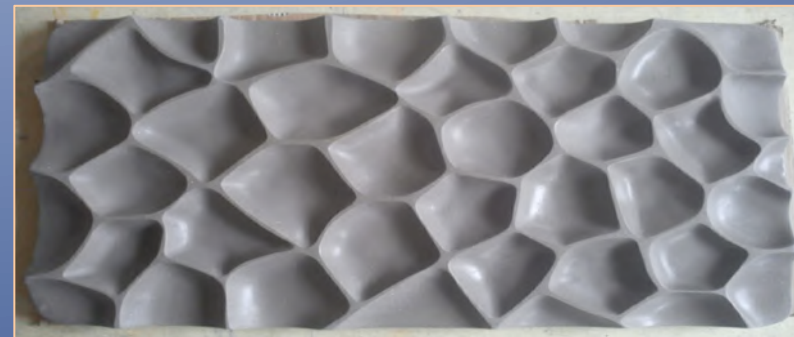


Heating panels

Radiator heats the geopolymer mass up to the 100°C by incorporated electric heating cable. The temperature is checked by build in thermostat. The panel emits heat similar to comfortable tile stoves.

Accumulated heat saves electric energy and saving depends on the type of filler (basalt, marble, granite, etc.)

Energy saving up to 35 %.

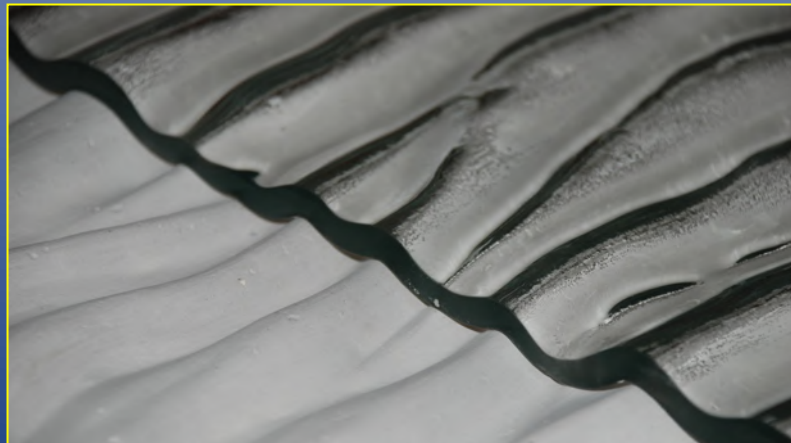


Fussed glass molds

The moulds for fussed glass technology with possibility to create a long formats.



The view into the furnace
(2.5 m length)



The detail of fussed glass coping mould nodulation, heated on 830°C with 25 minutes dwell.

The GP-composite is protected by the Czech Intellectual Property

Memorial panels in geopolymer composite (imitation of bronze)

Geopolymer composite filled by porcelain shards allows perfect copies of all details in inscription.



Powdered bronze applied directly to the mold first layer gives typical greenish color of highly weathered copper.



Finished plates with powdered bronze applied into shellac.

The repair of industrial concrete floor



Fixing an old industrial floor close to the rails in steel producing factory. The deepness of floor gaps were from 2 mm to 20 cm.



The geopolymer-slag composite was filled with sand and gravel in big holes in quantities of 70 wt. %.
The setting time was 2 hours, hardening in 4 hours at ambient conditions.

Vibrocompacting

- The most industrial way – vibrocompacting of building elements is in focus of our interest and was tested in 2010.
- The development of geopolymer/sand composite is ready for industrial application in the autumn of this year.





Thanks for your attention