

BM01 – Themes for presentation

- Rules for presentation are [here](#).
- Other theme (from the field of the building materials) is allowed after the consultation with the teacher. Teacher decides in which seminar the presentation will be performed.
- One theme can chose only one student.

Themes:
Seminar 1: Materials for vertical bearing structures
1. Building stone. Types, products, use
2. Lightweight concretes. Methods of preparation, properties, use.
3. High performance concretes. Types, preparation, properties, use.
4. Artificial stone. Definition, production, types, use.
5. Ceramic materials (products) for vertical supporting structures
6. Building construction from unburned clay
7. Fibers for concrete reinforcement. Steel, glass, polypropylene.
Seminar 2: Materials for horizontal constructions, roofs and claddings
8. Materials (products) for horizontal supporting structures. Review, requirements.
9. Materials (products) for slope roofs. Types, requirements, comparison
10. Materials for cladding
11. Engineered wood (wood based products). Boards, slabs, joists.
12. Glass as a building material.
13. Aluminum and light alloys in building construction.
14. Gypsumboard (plasterboard, drywall).
Seminar 3: Materials for thermal insulations
15. Thermal insulations from mineral and glass fibers (stone wool, glass wool).
16. Thermal insulations from foamed polystyrene. Expanded and extruded.
17. Thermal insulations from sprayed polyurethane foam
18. Natural materials for thermal insulating. Plant fibers, animal hairs.
19. Foamed glass.
20. Insulating materials for bearing structures. Lightweight concretes, ceramic.
Seminar 4: Materials for waterproofing and coatings.
21. Bituminous waterproofing. Felts, coatings, penetration.
22. Plastic waterproofing foils. Materials, types, properties, use.
23. Clay waterproofing. Bentonite
24. Epoxy coatings. Definition, formulas, types, properties.
25. Materials for concrete rehabilitation. Coatings on silicate base.
26. Silicone materials in building construction. Definition, types, use.