Sanitary-Industrial Laboratory

"14" august 2023

TEST PROTOCOL

RADIATION SAFETY TEST PROTOCOL OF "KLİNKER FACADE TİLES"

Preparation of Test Protocol on radiation safety

- Republic Construction Standards. Interim guidelines on Radiation Control over Construction and Construction Materials
- State Standard 30108-94, "Construction ware and materials. Define of specific effective activity of natural radionuclide.", Interstate Standard, Russian State Committee for Construction, Moscow;
- International Basic Safety Standards for Protection Against Snoozing Radiation and for the Safety of Radiation Sources Safety Standards Series No 115-Vienna IAEA (1996);
- Radiation Safety Standards RSS -76/87;

has been carried out in the following devices according to the normative documents:

1. Gamma Spectrometer with HPGe Detector (Canberra);
2. "FLIR identiFINDER 2" Gamma Spectrometer
3. "Alpha Analyst" Alpha Spectrometer (Canberra)

Unit 1. testing conditions: Laboratory

Date of testing: 11.08.2023

Objective of testing: Characteristics of radiation safety and radionuclide activity in the samples in the result of "Klinker facade tiles" sample's study by radiometric and spectrometric methods

Unit 2. **Properties of testing product**

Intended purpose: Construction materials

Unit 3. The testing results have been given in the following tables:

Sample name	KLİNKER FACADE TILES
Cs-137, *Bq/kg*	MDA=0,49
Sr-90, *Bq/kg*	MDA=1,22
Th-232, *Bq/kg*	38,5 ± 2,3
K-40, *Bq/kg*	503 ± 42
Ra-226, *Bq/kg*	45,6± 4,0
Ra-228, *Bq/kg*	39,6 ± 3,8
A_{eff}, *Bq/kg*	**138,8 ± 6,1**
Class of material according to radiation safety	**I**

*Note: *MDA-minimum detectable activity, Bq/kg*

Result: As the effective activity of the "Klinker facade tiles" sample presented for testing is Aeff < 370 Bq/kg for natural radionuclides and artificial radionuclides are not detected in their content, these samples belong to materials of I-Class from the point of radiation safety and can be used unlimitedly in all fields.