



Centrum stavebního inženýrství a.s. Praha
Centre of Building Construction Engineering Prague

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Pražská 16, 102 21 Praha 10, Česká republika

Testing Laboratory of Chemical and Physical Properties of Building Materials
Testing Laboratory accredited by the Czech Accreditation Institute (ČIA), No. 1007.6

Test Report No. 47/2011

The number of the test report is identical with the number of the sample as listed in the Sample Acceptance and Disposal Register.

Date: 14.3.2011

Copy No.: 6

Subject of the test: Determination of the specific activity of ^{226}Ra , ^{40}K and ^{228}Th in the delivered sample.

Client: TZÚS Praha s.p. Prosecká 76°/811, Praha

Postcode: 190 00

Description of the test sample: obkladový prvek z betonu s různým dekorem,
č.vzorku: Z 010 07 0511

Factory, locality: WILD STONE International s.r.o, Politických vězňů 1337, 274 44 Slaný

Date of sampling: 2.3.2011 **Sampled by:** RNDr. V.Hötzel

Measuring instruments: Spectrometer Silena VARRO 16 + Gamma programme

Calibration: ČMI IIZ (Czech Metrology Institute – Ionizing Radiation Inspectorate) Prague,
valid until 31.2.2011

Licence for the activities performed: Decision of the State Office for Nuclear Safety (SÚJB) Ref. No. 4985/2010, and Czech Accreditation Institute (ČIA) Certificate No. 271/2009 valid until 22.04.2014.

Test procedure: The specific activities of ^{226}Ra , ^{40}K and ^{228}Th have been determined by the ZHVP VÚPS-2-018/85 method.

Date of the test: 4.3.2011

Results of the test:

Mass activity of ^{226}Ra	31	(Bq/kg)
Uncertainty of the ^{226}Ra mass activity	5,5	(%)
Expanded uncertainty of the ^{226}Ra mass activity according to EA 4/16	11,0	(%)
Mass activity of ^{228}Th	10	(Bq/kg)
Uncertainty of the ^{228}Th mass activity	5,5	(%)
Expanded uncertainty of the ^{228}Th mass activity according to EA 4/16	11,0	(%)
Mass activity of ^{40}K	384	(Bq/kg)
Uncertainty of the ^{40}K mass activity	1,8	(%)
Expanded uncertainty of the ^{40}K mass activity according to EA 4/16	3,6	(%)
Mass activity index	0,28	

These measured values relate only to the above specified measured sample.

Evaluation: In the following the material is evaluated in accordance with the Order No. 307/2002 Coll., as amended by the Order No. 499/2005 Coll., of 1 January 2005, Art. 96, Annex No. 10.

The above mentioned test sample, when evaluated according to the Annex No. 10 Table 1, ~~exceeded*~~ – exceeded not* the mass activity limit of ^{226}Ra and may* – ~~must not*~~ be put into circulation as a building material for use in construction works with dwelling or public rooms.

The above mentioned test sample, when evaluated according to the Annex No. 10 Table 1, ~~exceeded*~~ – exceeded not* the mass activity limit of ^{226}Ra and may* – ~~must not*~~ be used as a building material solely in other construction works than those with dwelling or public rooms.

The above mentioned test sample, when evaluated according to the Annex No. 10 Table 2, ~~exceeded*~~ – exceeded not* the guidance level for natural radionuclides in building materials intended for building of walls, ceilings and floors in construction works with dwelling or public rooms, especially in masonry units, prefabricated units, blocks, bricks, concrete, plasterboards – mass activity index up to 0,5.

The above mentioned test sample, when evaluated according to the Annex No. 10 Table 2, ~~exceeded*~~ – exceeded not* the guidance level for natural radionuclides in other building materials intended for use in construction works with dwelling or public rooms – mass activity index up to 1,0.

The above mentioned test sample, when evaluated according to the Annex No. 10 Table 2, ~~exceeded*~~ – exceeded not* the guidance level for natural radionuclides in building materials intended for other use than in construction works with dwelling or public rooms, all building materials intended for use solely as raw materials for manufacture of building materials – mass activity index up to 2,0.

* to be deleted as appropriate

Test and evaluation performed by

Ing. Viktor Kilián

holder of a special professional competence
Ref. No. 18178/2003 valid until 30.09.2013



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