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## Test Report

*(Estimation of the activity concentration index "I" in building materials)*

**Company:** CINCA - Companhia Industrial de Cerâmica, S.A. Rua Principal, 39 - Apartado 12, 4509-908 Fiães VFR – PORTUGAL

**Material:** Dry-pressed ceramic tiles with low water absorption of Group BIb ( $0.5 \% < E_b \leq 3 \%$ ) - Annex H

**Experimental:** High resolution gamma-ray spectrometry. Ge detector with 40% efficiency and resolution ranging between 1.46 keV and 2.12 keV (FWHM), bias at -3000 V, measurement time of 24h. Quantity used: 1816 g. Measurement error below 5%.

**Date of analysis:** 18-12-2016

### Results:

<b>Ra-226</b> (Bq/kg)	<b>Th-232</b> (Bq/kg)	<b>K-40</b> (Bq/kg)	<b>I</b>	<b>I*</b>
109.72	42.89	744.39	0.83	0.94

i) Council Directive 2013/59/Euratom of 5 December 2013; ii) Chinese standard – Limits of radionuclides in building materials GB6566.

**Conclusion:** As "I" is, in both cases, lower than 1, the material can be used without restriction.

Coimbra, 31 December 2016



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