

Certificate

Zemseal[®] flex hybrid render CB

03.01.2017 | english

Determination of the Radon Diffusion Coefficient

tested by: IAF – Radioökologie GmbH, Radeberg

IAF-Radioökologie GmbH | Wilhelm-Rönsch-Straße 9 | 01454 Radeberg

Max Frank GmbH & Co. KG
Mitterweg 1
94339 Leiblfing

Wilhelm-Rönsch-Straße 9
01454 Radeberg
Phone +49 (0) 3528 48730-0
Fax +49 (0)3528 48730-22
E-Mail: info@iaf-dresden.de
www.iaf-dresden.de

Managing Directors:
Dr. rer. nat. habil. Hartmut Schulz
Dr. rer. nat. Christian Kunze
Dr. rer. nat. Holger Hummrich

Trade register: HRB 9185
Register court: Dresden

Bank account:
HypoVereinsbank Dresden
IBAN: DE92 8502 0086 5360 1794 29
SWIFT (BIC): HYVEDEMM496



Radeberg, 2017-01-03

Certificate

Determination of the Radon Diffusion Coefficient

The radon diffusion coefficient D of the material "Zemseal Flex Paste CB" as supplied by the client

Max Frank GmbH & Co. KG
Mitterweg 1
94339 Leiblfing

has been experimentally determined by IAF-Radioökologie GmbH using a double chamber system. The results are provided in the following table.

Description of variables	Measured values
Diffusion coefficient D	$3.42 \cdot 10^{-12} \text{ m}^2/\text{s}$
Diffusion length L_D	1.28 mm
Material thickness d	5.0 mm
Area of the material F	196 cm ²
Test parameter $R = d/L_D$	3.92
Result	R > 3, i.e., radon tight

A material is rated "radon tight" if its thickness exceeds the radon diffusion length of the material at least by a factor 3. Otherwise the material is rated "not radon tight". A "radon tight" material is defined by a material which, when covering a radon-exhaling surface, reduces the exhalation rate by at least 95% compared to the bare surface.

Dr. rer. nat. habil. Hartmut Schulz
Managing Director