CZECH TECHNICAL UNIVERSITY IN PRAGUE
FACULTY OF CIVIL ENGINEERING –
TESTING LABORATORY
testing laboratory No. 1048 accredited by
CIA under ČSN EN ISO/IEC 17025:2018
Thákurova 7, Praha 6, 166 29

L 1048

EXPERT LABORATORY OL 124
Phone: +420224354806
E-mail: jiranek@fsv.cvut.cz

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upon the test : **Determination of the radon diffusion coefficient of SOUDATIGHT SP membrane carried out in accordance with the ISO/TS 11665-13**

Client`s name and address:

Soudal NV
Everdongenlaan 18
B-2300 Turnhout
Belgium

Date of issue: 24.4.2023

Approved by:

ČESKÉ VYSOKÉ UČENÍ TECHNICKÉ V PRAZE FSv č. 1048 Akreditovaná zkušební laboratoř OL 124

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prof. Ing. Martin Jiránek, CSc.
head of OL 124 laboratory

Test results

The resulting mean values of the radon diffusion coefficient, the radon diffusion length and the radon resistance including expanded measurement uncertainty, are listed in the following table in the form of (mean ± U). The results refer to the samples as they were taken over.

TESTED MATERIAL	Soudatight SP
Rn diffusion coefficient D (m^2/s)	$(1{,}3 \pm 0{,}2).10^{-12}$
Rn diffusion length l (m)	$(0{,}8 \pm 0{,}1).10^{-3}$
Rn resistance R_{Rn} (Ms/m)	1 991 ± 237

The expanded uncertainties of measurement $\pm U$ mentioned are the product of standard measurement uncertainties and the expansion coefficient k = 2, which provides a confidence interval of approx. 95 %. The radon diffusion length was calculated according to the equation $l = \sqrt{D/\lambda}$ and the radon resistance as follows: $R_{Rn} = \frac{\sinh(d/l)}{\lambda \cdot l}$, where $\lambda - 2{,}1.10^{-6}$ s^{-1} and $d = 1{,}50$ mm $= 1{,}50.10^{-3}$ m.

The test was performed by: prof. Ing. Martin Jiránek, CSc., Ing. Veronika Kačmaříková, Ph.D.

The report was prepared by: Ing. Veronika Kačmaříková, Ph.D.

end of the report