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Dichtungssysteme
Brandschutzsysteme
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Certificate

Determination of the Radon Diffusion Coefficient

The radon diffusion coefficient D of the sealing system "HKD DOMO-NW-T" as supplied by the client

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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	$3.80 \cdot 10^{-11} \text{ m}^2/\text{s}$
Diffusion length L_D	4.25 mm
Material thickness d	20 mm
Area of the material F	314 cm ²
Test parameter $R = d/L_D$	4.70
Result	R > 3, i.e., radon tight

The result "radon tight" also applies to the sealing systems HKD DOMO NW, HKD DOMO NW B, HKD DOMO NW M, HKD DOMO NW FL, HKD DOMO NW FL K, HKD DOMO-NW-Z, HKD DOMO DW, HKD DOMO DW T, HKD DOMO DW B, HKD DOMO DW M, HKD DOMO DW FL, HKD DOMO DW FL K, HKD DOMO DW Z, HKD DOMO V und HKD DOMO VT.

A sealing system is rated "radon tight" if its thickness exceeds the radon diffusion length of the material at least by a factor 3. Otherwise the sealing system is rated "not radon tight". A "radon tight" sealing system 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.

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