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DOYMA GmbH & Co
Dichtungssysteme
Brandschutzsysteme
Industriestraße 43-57
28876 Oyten

Certificate

Determination of the Radon Diffusion Coefficient

The radon diffusion coefficient D of the sealing system "DOYMA HKD wall collar" 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	$3.36 \cdot 10^{-10} \text{ m}^2/\text{s}$
Diffusion length L_D	12.65 mm
Material thickness d	50 mm
Area of the material F	490 cm ²
Test parameter $R = d/L_D$	3.95
Result	R > 3, i.e., radon tight

The result "radon tight" also applies to the sealing systems HKD KG sewer wall element, HKD KG floor element, HKD KG sewer bend, HKD KG sewer double sleeve, HKD KG2000 sewer wall element, HKD KG2000 sewer floor element, HKD KG2000 sewer bend, HKD KG2000-sewer double sleeve, HKD floor drain und HKD KE-pipe sleeve.

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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