Determination of water vapour permeability acc. to EN 13469

Test report no.: R-12/20

Applicant: **K-Flex Polska Sp. z o.o. Wielenin Kolonia 50b, 99-210 Uniejów**

Product name: **K-FLEX ST**

Material designation: **04075074896 P**

Material description: (acc. to indication) Tube made of flexible elastomeric foam according to EN 14304:2009+A1:2013; Colour: black; Nominal thickness: 25 mm; inner diameter: 25 mm;

Origin of the material: Sampling by FIW München in the plant Uniejów on 17.12.2019.
Samples were sent by applicant on 22.01.2020 to the FIW München.
Goods receipt no.: WE20-1014

Test procedure: Determination of water vapour permeability in accordance with EN 13469:2013.
Test conditions according to clause 5: (23°C, 0/50% r. h.)
Specimen: tube Length: approx. 230 mm
Comment: $\mu_{tube} = (2 \cdot \pi \cdot l \cdot \delta_L \cdot \Delta p)/(G \cdot \ln((D_i+2 \cdot d)/D_i))$

Conditioning: -

Period of testing: February - May 2020

Results: The water vapour diffusion resistance index μ_{tube} has been tested at five specimens with a mean density of 57 kg/m³.

specimen no.	inner diameter D_i mm	thickness d mm	density kg/m³	water vapour resistance index μ_{tube}	water vapour permeability δ kg/(m·s·Pa)
1	23.0	24.0	57.2	10400	$1.99 \cdot 10^{-14}$
2	23.0	23.8	57.7	10580	$1.96 \cdot 10^{-14}$
3	23.0	23.9	56.9	10330	$2.01 \cdot 10^{-14}$
4	23.0	23.9	57.5	10890	$1.90 \cdot 10^{-14}$
5	23.0	23.9	57.2	10700	$1.94 \cdot 10^{-14}$
arithmetic mean	**23**	**24**	**57**	**10600**	**$2.0 \cdot 10^{-14}$**

Remarks: The measured values are applicable only for the tested specimens with thickness d, inner diameter D_i and chosen test conditions as specified above.

Gräfelfing, 28.05.2020

Department specialist

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Examiner

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