

## Determination of water vapour permeability acc. to EN 13469

Test report no.: R-13/20

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

**Product name:** K-FLEX ST

**Material designation:** 07871014997 P

**Material description:** Tube made of flexible elastomeric foam according to EN 14304:2009+A1:2013; Colour: black; (acc. to indication) Nominal thickness: 13 mm; inner diameter: 28 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:  $\mu_{\text{tube}} = (2 \cdot \pi \cdot l \cdot \delta_L \cdot \Delta p) / (G \cdot \ln((D_i + 2 \cdot d) / D_i))$

**Conditioning:** -

**Period of testing:** February - April 2020

**Results:** The water vapour diffusion resistance index  $\mu_{\text{tube}}$  has been tested at five specimens with a mean density of 53 kg/m<sup>3</sup>.

specimen no.	inner diameter $D_i$ mm	thickness $d$ mm	density kg/m <sup>3</sup>	water vapour resistance index $\mu_{\text{tube}}$	water vapour permeability $\delta$ kg/(m·s·Pa)
1	27.0	14.1	53.1	8480	$2.43 \cdot 10^{-14}$
2	27.0	14.1	53.1	8040	$2.57 \cdot 10^{-14}$
3	27.0	14.2	52.9	7750	$2.66 \cdot 10^{-14}$
4	27.0	13.9	54.5	8200	$2.52 \cdot 10^{-14}$
5	27.0	14.1	53.4	8590	$2.40 \cdot 10^{-14}$
<b>arithmetic mean</b>	<b>27</b>	<b>14</b>	<b>53</b>	<b>8200</b>	<b><math>2.5 \cdot 10^{-14}</math></b>

**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




Dipl.-Ing. (FH) Stefan Kutschera

Examiner



Michael Zimmermann

Results relate only to the items tested.

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