

Determination of water vapour properties according to EN 12572 method C for the ORIGIN

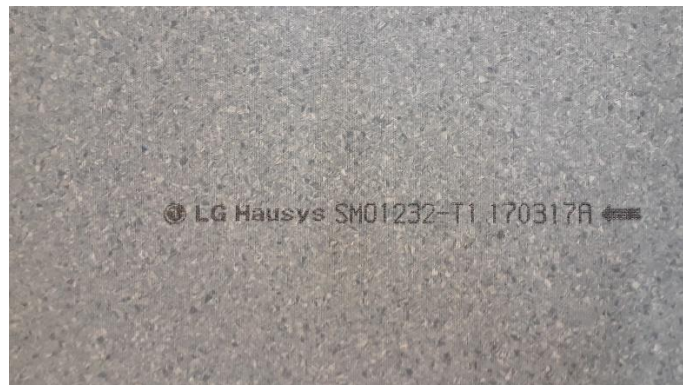
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Assignment **Determination of water vapour properties according to EN 12572 method C for the ORIGIN**

Sample details The customer delivered sample to Eurofins Expert Services Oy March 29, 2019. The sample details are presented in picture 1.



Picture 1. Product information of the sample

Methods The water vapour properties were determined according EN 12572 method C (+23 °C, 50/93 % RH).

Results Test results are shown table 1. Individual test results of the test specimens are presented appendix 1.

Table 1. Test results of ORIGIN

Property	Method	Unit	Results
Water vapour permeability +23 °C, RH 50/94%, KNO ₃	EN 12572 Method C	G (kg/s)	5,84 x 10⁻¹¹
		g (kg/(m ² s))	3,49 x 10⁻⁰⁹
		W (kg/(m ² sPa))	2,89 x 10⁻¹²
		Z=1/W	3,48 x 10⁺¹¹
		δ (kg/(msPa))	5,72 x 10⁻¹⁵
		μ	4,27 x 10⁺⁰⁴
	sd (m)	84,5	

Espoo, 25.6.2019

Jukka Sulin

Expert

Appendices Individual test results

Distribution Customer, electronically approved

Table 2. Individual test results

Test specimen no.		1	2	3	4	5	Mean value
Unit*	Thickness	2,0	2,0	2,0	1,9	2,0	2,0
G (kg/s)		5,26E-11	5,70E-11	6,18E-11	6,33E-11	5,69E-11	5,84E-11
g (kg/(m ² s))		3,15E-09	3,41E-09	3,70E-09	3,79E-09	3,41E-09	3,49E-09
W (kg/(m ² sPa))		2,61E-12	2,82E-12	3,06E-12	3,14E-12	2,82E-12	2,89E-12
Z=1/W		3,84E+11	3,54E+11	3,26E+11	3,19E+11	3,55E+11	3,48E+11
δ (kg/(msPa))		5,21E-15	5,65E-15	6,13E-15	5,96E-15	5,64E-15	5,72E-15
μ		4,66E+04	4,31E+04	3,97E+04	4,08E+04	4,31E+04	4,27E+04
sd (m)		9,33E+01	8,61E+01	7,94E+01	7,75E+01	8,63E+01	8,45E+01

***SYMBOLS:**

- G; moisture flow rate through specimen
- gme/g; correction for the effect of a masked edge
- g; density of water vapor flow rate
- W; water vapor permeance
- Z; water vapor resistance
- δ; water vapor permeability
- μ; water vapor resistance factor
- sd; water vapor diffusion-equivalent air layer thickness