



# TECHNICAL DATASHEET

## Multifunctional underlay with a ventilation feature for use under laminate and parquet (engineered floor).

**Product code:** 392119000  
**Brand name:** ProVent™

### Structure of material

A combination of low-density LDPE foam sheet with closed-cell structure and a membrane of high-density polyethylene (HDPE) film. The HDPE film is laminated to the LDPE foam by heat. The bottom surface of the polyethylene has multiple ribs that create a system of air channels. The colour of the HDPE film may vary. The material is supplied in rolls and has got a HDPE overlap of 20 cm.

### Basic principle of operation

The ProVent *micropumping*™ technology makes use of the differences of temperature and pressure in the underfloor area and the room. Due to this difference, humid air is extracted through the air channels and replaced with fresh air. The air exchange in the area between subfloor and ProVent underlay is continuous and is boosted by slight movements of the flooring under footstep pressure while walking. This feature essentially reduces the level of moisture on top of the subfloor and decreases the risk of mould formation. ProVent provides full protection of the flooring against moisture, and no additional vapour barrier is needed.

### Main properties:

Material		
Low-density polyethylene foam with a profiled surface and high-density polyethylene film.		
1. Dimensions		
number of ribs per metre	175	±5 %
<i>thickness</i>		
thickness of foam layer	2.3 mm	EN 823 + Annex A to FprCEN/TS 16354:2011
thickness of HDPE film	0.02 mm	
<i>roll width</i>		
PE foam sheet	1.0–1.3 m	
HDPE film	foam sheet +0.20 m	
<i>roll length</i>	15–100m	

### General notice

All qualities and technical values mentioned in this datasheet represent our best information and experiences standard. The values cannot be used as absolute numbers. It is up to the final user to assure that the product is suitable for its designated use. The same limitations apply to our technical and practical advice.

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<b>2. Technical data</b>		
density		
density of foam layer (kg/m <sup>3</sup> )	35	
density of HDPE (kg/m <sup>3</sup> )	950	
weight (g/m <sup>2</sup> )	83	±5 %
<i><b>Acoustic properties</b></i>		
walking sound improvement	-	Testing in progress
impact sound improvement (dB)	22	LVS EN ISO 10140-8 <sup>1</sup>
impact sound pressure level L'n, w (hollow core slab 300/parquet underlay) (dB)	55	LVS EN ISO 10140-8 <sup>1</sup>
<i><b>Moisture barrier qualities</b></i>		
S <sub>D</sub> -value (m)	comparable >100	combined effect of ventilation feature and vapour barrier properties, test report VTT-S-06851-08/GB <sup>2</sup>
<i><b>Thermal Resistance Qualities</b></i>		
thermal resistance R (m <sup>2</sup> K/W)	0.040	EN 12667, test report VTT-S-10322-08 <sup>2</sup>
<i><b>Ventilation Qualities</b></i>		
Area of subfloor surface free for air exchange (%)	≈60	Test report No. PEPI-17112015. Print method <sup>4</sup>
Drying characteristic of the subfloor (DCS).Loosing of moisture in 60 days (kg)	>2	Test report No. PRQC 100.004, 12.11.2015, Determination of concrete drying underneath underlay with air channels/ventilation gap <sup>4</sup>
<i><b>Compressibility</b></i>		
Compression strength (kPa)	10	CEN/TS 16354:2013, EN 826 + A.3.5

#### **Other properties & application information:**

product lifetime (years)	50	
Level of harmful emissions	M1 (best emission class for building materials)	Rakennustieto, Finnish Building Information Foundation RTS, 23.09.2012, test report VTT-S-05584-09

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VOC and aldehyde emission	Fulfil the requirements of the AgBB-Scheme and "DIBt Principles for the health assessment of construction products in interiors"	EN ISO 16000 <sup>3</sup>
Application areas	with laminate and parquet (engineered) flooring	minimum thickness – 6 mm
use with floor heating system	YES	
compensation of uneven floor (mm)	1.0	
recyclable	YES	100 % recyclable

<sup>1</sup> Results obtained with 8 mm laminated flooring.

<sup>2</sup> Test reports issued by VTT Technical Research Centre of Finland, VTT Building and Transport, P.O. Box 1804, FIN-02044, Finland. Reports are available in Finnish and English.

<sup>3</sup> Test reports issued by EPH Entwicklungs- und Prüflabor Holztechnologie GmbH, D-01217 Dresden, Germany.

<sup>4</sup> Test reports issued by PEPI RER Quality Control Department

In the case of any questions, please contact our Production department, e-mail: [pepirer@apollo.lv](mailto:pepirer@apollo.lv).

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