



# TESTING LABORATORY FOR BUILDING MATERIALS AND BUILDING PHYSICS

Department of Building Physics and Building Materials  
Lodz University of Technology  
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TESTING LABORATORY – DEPARTMENT OF BUILDING  
PHYSICS AND BUILDING MATERIALS  
LODZ UNIVERSITY OF TECHNOLOGY  
Al. Politechniki 6, 90-924 Łódź  
tel./fax (042) 631 35 62, 631 35 56

## TEST REPORT

**no. MB/33-1/2016**

Subject: Testing of product samples:

**flooring materials**

Contract no. No. I-162/K-62/297/2016

Client: **ZIP Sp. z o.o.**  
**ul. Zamkowa 34**  
**34-200 Sucha Beskidzka**

Order date: 01.08.2016

Report release date: 12.08.2016

**LODZ UNIVERSITY OF TECHNOLOGY**

Department of Building Physics and Building Materials

TESTING LABORATORY

FOR BUILDING MATERIALS AND BUILDING

PHYSICS

al. Politechniki 6, 90-924 Łódź

Testing Laboratory

for Building Materials and Building Physics

LABORATORY MANAGER

*Piotr KONCA, PhD Eng.*

Investigator

Authorised by:

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The laboratory declares that the test results relate only to the sample of the tested product. The Report shall not be reproduced in part without the written approval of the Testing Laboratory.

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### TEST REPORT No. MB/33-1/2016

Testing Laboratory for Building Materials and Building Physics,  
Department of Building Physics and Building Materials,  
Lodz University of Technology, al. Politechniki 6, 90-924 Łódź, tel./fax. (042) 631 35 56

*Client:*

**ZIP Sp. z o.o.  
ul. Zamkowa 34  
34-200 Sucha Beskidzka**

*Product, Object:* **flooring materials**

accepted for testing on 01.08.2016, with report no. MB/33/2016, in accordance with the procedure, tested between 02.08.2016 and 11.08.2016.

*Seasoning procedure:*

The samples were seasoned at  $(23 \pm 2)^\circ\text{C}$  and  $(50 \pm 5)\%$  relative humidity for 24 h.

*Methods, test procedures:* the test methods and procedures in accordance with the Polish standard:

PN-EN 1534:2011

#### Test results

Tested features	Test results
Determination of indentation resistance (Brinell HB method) (PN-EN 1534:2011)	
Venifloor board	$51.5 \pm 7.0 \text{ N/mm}^2$
Pine board	$18.8 \pm 4.5 \text{ N/mm}^2$
Floor board (use layer: oak)	$36.5 \pm 10.0 \text{ N/mm}^2$

The estimation of the extended measurement uncertainty with a confidence level of approximately 95% and expansion coefficient  $k = 2.0$ .

<i>Investigator</i>	<i>Signature</i>	<i>Authorised by:</i>	<i>Signature</i>
<i>M.Sc. Eng. Janusz Kublik</i>		<i>Piotr Konca, PhD Eng.</i>	

*Other information on the tests: -*

Investigator:

*M.Sc. Eng. Janusz Kublik*

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Authorised by:

(title, signature)

Testing Laboratory  
for Building Materials and Building Physics  
LABORATORY MANAGER  
*Piotr KONCA, PhD Eng.*

Place, date: Łódź, 12.08.2016

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