



TECHNICKÝ A ZKUŠEBNÍ ÚSTAV STAVEBNÍ PRAHA, s.p.

Technical and Test Institute for Constructions Prague

Akreditovaná zkušební laboratoř, Autorizovaná osoba, Certifikační orgán, Inspekční orgán  
Accredited Test Laboratory, Authorised Body, Certification Body, Inspection Body

Branch 0500 - Předměřice nad Labem - Testing Laboratory

# REPORT

No. 050 - 016823

on thermal conductivity testing on samples  
of TEMPELAN cellulose thermal and acoustic insulation

**Customer:** ENROLL spol. s r.o.,  
Nová Ves 190,  
463 31 Chrastava

Purchase order No.: dated 3 June 2008

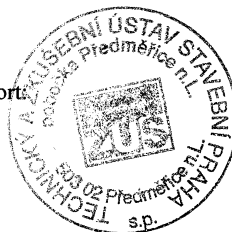
Job No.: Z050080093

Enclosures: --


This report consists of 4 pages in writing including the title page and it was produced in two counterparts. One counterpart will be given to the customer and the other one will be archived with additional documents in the TZÚS Předměřice nad Labem.

Person responsible for the wording of this report:

Person responsible for the accuracy of this report:



Seal of testing laboratory

  
Oldřich Kučera  
Author of report

  
Václav Dyměš

Head of Testing Laboratory

In Předměřice nad Labem, on 30 June 2008

**Comments:**

- 1) The test results are applicable to the objects (samples) tested only.
- 2) This report may be copied in its entirety without written consent of the Testing Laboratory. Partial copies are subject to approval.

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ID No.: 000 15679

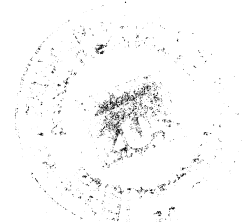
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## **LIST OF CONTENTS**

Page No.

<b>1.</b>	<b><u>SPECIFICATION OF TESTED OBJECT (SAMPLE)</u></b>	<b>3</b>
<b>2.</b>	<b><u>SAMPLE COLLECTION AND PREPARATION</u></b>	<b>3</b>
<b>3.</b>	<b><u>TESTING METHODS, REGULATIONS AND PROCEDURES</u></b>	<b>3</b>
<b>4.</b>	<b><u>TEST EQUIPMENT AND METROLOGY COMPLIANCE</u></b>	<b>3</b>
<b>5.</b>	<b><u>TEST RESULTS.</u></b>	<b>4</b>
<b>5.1.</b>	<b><u>DETERMINATION OF THERMAL CONDUCTIVITY COEFFICIENT</u></b>	<b>4</b>



**1. Specification of Tested Object (sample)**

1.1. Tests of the submitted samples - TEMPELAN cellulose insulation - were carried out based on your purchase order.

1.2. Date of testing: 06.2008

**2. Sample Collection and Preparation**

2.1. Date of sampling: 06.2008

2.2. Place of sampling: --

2.3. Performed by: customer's employee

2.4. Sampling method: --

2.5. Transport method: by customer's vehicle

2.6. Date of receipt: 6 June 2008

2.7. Sample Reg. No.: 194/08

2.8. Test sample preparation method:

preparation of the samples of various volume weight and conditioning were conducted by the customer.

**3. Testing Methods, Regulations and Procedures**

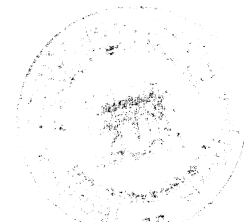
- ČSN EN 13163 Thermal insulation products for buildings - Factory made products of expanded polystyrene (EPS) products - Specification
- ČSN EN 823 - Thermal-insulating products for the use in building industry - Assessment of thickness.
- ČSN EN 1602 - Thermal-insulating products for the use in building industry - Assessment of volume weight
- ČSN EN 12667 - Thermal behaviour of building materials and products - Assessment of thermal resistance using the method of protective heating plate and heat flow gauges - Products of high and moderate thermal resistance

Information on deviations from the test procedure: -

**4. Test Equipment and Metrology Compliance**

Equipment, gauge	Type	Identification No.	Certificate valid through
Calliper	Digital, 300 mm	694	07.04.2009
Owva electronic weighing machine	0.01 g	862	21.02.2010
Calliper	SOMET	20	07.04.2009
Thermal conductivity gauge	Lambda 2300	serial No. 0499	07.01.2009

The test equipment and gauges used in the test have been verified or calibrated in terms of metrology and they are listed in the testing laboratory's rules of metrology. Calibration or verification certificates are kept by the laboratory's metrologist.





## 5. Test Results.

### 5.1. *Determination of Thermal Conductivity Coefficient*

Sample No.	Mean temperature (°C)	Surface temperature difference (°C)	Volume weight (kg.m <sup>-3</sup> )	Thermal conductivity coefficient $\lambda_i$ (W.m <sup>-1</sup> .K <sup>-1</sup> )	*Thermal resistance $R_i$ (m <sup>2</sup> .K.W <sup>-1</sup> )
1	10.7	10.0	40.0	0.0391	1.278
2	10.6	10.0	50.0	0.0404	1.238
3	10.6	10.0	60.2	0.0420	1.190

Note: \* calculated value relating to sample thickness of 50 mm.

**END OF REPORT**

