



Textilní zkušební ústav, s.p.

TEXTILNÍ ZKUŠEBNÍ ÚSTAV, s.p.
(TEXTILE TESTING INSTITUTE)
CERTIFICATION BODY FOR THE CERTIFICATION OF PRODUCTS
VÁCLAVSKÁ 6, 658 41 BRNO

issues

to the applicant: **PŘÍHODA s.r.o., Za Radnicí 476, 539 01 Hlinsko v Čechách, Czech Republic**

TESTIMONIAL

No.: 17 – 148

This testimonial confirms that the product:

fabric NMI (fabric with antibacterial treatment)

- new fabric

- fabric after 10 cycles of washing 40°C

Material composition: 100% polyester

Colour: white, mass per unit area 200 g.m⁻²

complies with the requirements of:

- **EN ISO 20645:2004 Textile fabrics – Determination of antibacterial activity – Agar diffusion plate test** regarding to antibacterial effect of the antibacterial treatment – Article 10, Table No.1
- **EN ISO 20743:2013 Textiles – EN ISO 20645 Textile fabrics – Determination of antibacterial activity of textile products** regarding to antibacterial activity of the antibacterial treatment – Annex F, Table F.1

Based upon the acquired level of antibacterial activity it has been proved that the assessed sample produces good antibacterial efficiency – strong antibacterial activity.

**Good antibacterial efficiency was detected on new PMI fabric
and on PMI fabric after 10 cycles of washing 40°C.**

This testimonial has been issued on the basis of the application No. COV/17/345 from 30.11.2017. The base for this testimonial is the test protocol No. AZL 17/1273-01 and No. AZL 17/1273-02 from 01.12.2017, issued by the accredited test laboratory of TZÚ Brno. Detailed conditions of testing have been specified in the test protocols.

Validity up to: 31.12.2019

Testimonial was issued: Brno, 06.12.2017

Issued by:

Ing. Svatava Horáčková
Head of certification body





Textilní zkušební ústav, s.p.

TZÚ Brno, COV, Testimonial 17-148
List: 1/1

Annex No.1

Assessed parameters – **fabric NMI new / after 10 cycles of washing**

| Characteristic | Test method | Measuring unit | Value required | Value identified | Evaluation |
|---|---------------------------|----------------|---------------------------|---------------------------|---------------------------|
| Fabric NMI : new material – without washing / material after 10 cycles of washing 40 °C | | | | | |
| Antibacterial activity – antibacterial effect of the antibacterial treatment • inhibition zone • growth of bacteria | EN ISO 20645 | mm | good antibacterial effect | | |
| | | | > 1 / 1-0 / 0 | 7 / 5 ¹⁾ | S |
| | | | > 1 / 1-0 / 0 | 7 / 5 ²⁾ | S |
| | | | none ¹⁾ | none / none ¹⁾ | S |
| none ²⁾ | none / none ²⁾ | S | | | |
| | | | | | good antibacterial effect |

Explanation: S – satisfy¹⁾ – *Staphylococcus aureus*,²⁾ – *Klebsiella pneumoniae*

Reference material: **fabric NMS without washing** (fabric without antibacterial treatment, 100% polyester, white) – produces strong growth of bacteria and insufficient antibacterial effect

Tested bacteria: 1) *Staphylococcus aureus* (CCM 4516) - grampositive bacteria
2) *Klebsiella pneumoniae* (CNCTC 6120) - gramnegative bacteria

Assessed parameters – **fabric NMI new / after 10 cycles of washing**

| Characteristic | Test method | Measuring unit | Value required | Value identified | Evaluation |
|--|--------------|----------------|----------------|-------------------------------------|-----------------------------------|
| Fabric NMI : new material – without washing / material after 10 cycles of washing 40 °C | | | | | |
| Antibacterial efficiency Antibacterial value A - significant - heavy | EN ISO 20743 | - | $2 \leq A < 3$ | $A > 5,72 / A = 3,58$ ¹⁾ | S heavy antibacterial activity |
| | | | $A \geq 3$ | $A > 6,86 / A = 5,57$ ²⁾ | |

Explanation: S – satisfy¹⁾ – *Staphylococcus aureus*,²⁾ – *Klebsiella pneumoniae*

Reference material: **fabric NMS after 1 cycle of washing** (fabric without antibacterial treatment, 100% polyester, white) – produces strong growth of bacteria and insufficient antibacterial effect

Tested bacteria: 1) *Staphylococcus aureus* (CCM 4516) - grampositive bacteria
2) *Klebsiella pneumoniae* (CNCTC 6120) - gramnegative bacteria

Assessed material – **fabric NMI new and after 10 cycles of washing 40 °C produces good antibacterial effect – heavy antibacterial activity.**

