

# TZÚ

Textilní zkušební ústav, s.p.  
(Textile Testing Institute)

## **TEXTILNÍ ZKUŠEBNÍ ÚSTAV, s.p.**

**Authorized Body No. 219**

Václavská 6, 658 41 Brno, Czech Republic

Decision on Authorization No. 26/2002 dated 12 September 2002

issued

in accordance with provision of § 10 of Act No. 22/1997 Coll., On Technical Requirements for Products, as amended, and § 2 and 3 of Government Order No. 163/2002 Coll. that determines technical requirements for selected building products

Producers: PŘÍHODA s.r.o., Za Radnicí 476, 539 01 Hlinsko v Čechách, id. no. 62024205

## **BUILDING TECHNICAL CERTIFICATE**

**no. S – 05/018**

for product: Textile diffusers, textile air distribution systems

variants: PLS, PMS, NLS, NMS; material composition: 100% polyester  
PLI, PMI, NLI, NMI; material composition: 100% modified polyester  
NMD; material composition: 100% polyethylene  
NHI; material composition: 100% fibreglass, polyvinyl chloride, antimony  
NHE; material composition: 100% fibreglass, polyurethane

Technical data and documents for issue of this Building Technical Certificate are given in the following pages that form its integral part.

Without written consent of the Authorized Body No. 219 this Building Technical Certificate may be reproduced only in whole.

By the Building Technical Certificate the above-mentioned Authorized Body certifies data considering technical properties of the product, their levels and procedures used for their examination in relation to basic requirements stated in Appendix No. 1 of Government Order No. 163/2002 Coll. Building Technical Certificate represents technical specification determined for evaluation of conformity of the given product.

Expiration date of this Certificate: 31 May 2008

In Brno on 21 May 2005

*Signature*  
RNDr. Pavel Malčík  
Director of the Institute

*Seal:* Authorized Body No. 219, Textile Testing Institute, s.p., ÚNMZ

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## Requirements for Textile Air Distribution Systems

### Description of the product:

Textile diffusers and textile air distribution systems are products shaped as a pipe and determined for air transport and distribution. They are made of woven fabrics as polyester, polyethylene or fibreglass. Diffusers are produced with circular, semicircular and quadrantal cross section, circular segments may be produced as a special variant.

Perforation or microperforation of the woven fabric determines air outlet from the diffuser. The particular way of perforation results from the required circulation rate in a certain distance from the diffuser. The air range may be increased by use of plastic nozzles inserted into the woven fabric.

Textile diffusers are made in the following colour variants: white, yellow, grey, blue, red, green, black.

Installation is carried out using installation materials (dowels, hooks, screws) that are fixed to wire strand or into sections. Separate parts of the diffusers and distribution systems are connected with slide fasteners.

### Declaration of the product use:

The diffusers and air distribution systems ensure ventilation, cooling and heating of offices, workshops in food, textile, electrotechnical, chemical and other industries, sports halls, swimming pools, cultural establishments etc.

Maintenance of the textile diffusers and distribution systems is implemented by washing in accordance with symbols given on care label tags.

### Properties of the product:

Evaluated property	Testing method	Unit	Declared value
Dimensions	ČSN EN 25 077 ČSN EN ISO 6330	mm	Customer requirement
Suitability of use for clean area and the appropriate controlled area	ČSN EN ISO 14644-1	Particles with dimension $0.5 \mu\text{m.m}^{-3}$	Max. class 4
Resistance to fire	ČSN EN 13 501-1	--	--
Hygienic properties	Microbiological testing, decree no. 132/2004 Coll.	--	--

The product may meet the required properties under condition that the project engineer chooses the right type and the product is built-in in a proper way. The project engineer should evaluate the parameter levels in relation to the certain conditions in the place where the product is used.

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## **Documents submitted by the producer:**

- technical documents containing description of the product, specification and way of use in the building;
- declaration of properties in accordance with tests;
- certificate of producer's quality system no. 3009/122-04/SMJ issued by Výzkumný ústav pozemních staveb, Certifikační společnost s.r.o. on 6 October 2004;
- check-up report no. 33/05 dated 10 June 2005, supervision over the production control system;
- test reports proving meeting of the declared properties;
  - no. ZŽP 19-462/04Ex4012519 dated 16 April 2004 issued by SZÚ Praha;
  - no. 11923-1/2 dated 17 December 2003; no. 12281-2/2 dated 4 October 2004; no. 12206 dated 16 July 2004 issued by CSI, a.s. Praha;
  - no. 36/6/2005 dated 14 June 2005 issued by ÚPL LF MU Brno.

## **Evaluation of the confirmation tests:**

No confirmation tests were carried out to issue the Building Technical Certificate.

## **Specification requirements to determine conformity:**

The product is classified as group 10.9 in accordance with Appendix No. 2 of Government Order No. 163/2002 Coll., and conformity should be determined in accordance with § 5 of Government Order No. 163/2002 Coll., i.e. product certification. Check of meeting the determined requirements in the product was carried out in accordance with requirements of the above-mentioned standards.

Supervision activity: once per year supervision over check of meeting the determined requirements in products by the importer.

## *Signature*

Made out by: Ing. Elen Klašková

## Interpreter's clause

As an interpreter from Czech into English and Russian languages appointed by a decree of the Regional Court in Brno dated 20.11.1995, exhibit No. Spr. 88/95, I certify that the translation is identical to the text of the attached document.

In the translation I didn't make any corrections.

The act is recorded with a serial No. 2862 of the Translator's Diary.

Bílovice nad Svit., 15 August 2005

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(Textile Testing Institute)

## TEXTILNÍ ZKUŠEBNÍ ÚSTAV, s.p.

Authorized Body No. 219

Václavská 6, 658 41 Brno, Czech Republic

Decision on Authorization No. 26/2002 dated 12 September 2002

### FINAL REPORT

No. 219/05/078

Customer: PŘÍHODA s.r.o., Za Radnicí 476, 539 01 Hlinsko v Čechách

Product: **Textile diffusers, textile air distribution systems**

variants: PLS, PMS, NLS, NMS; material composition: 100% polyester  
PLI, PMI, NLI, NMI; material composition: 100% modified  
polyester  
NMD; material composition: 100% polyethylene  
NHI; material composition: 100% fibreglass, polyvinyl chloride,  
antimony  
NHE; material composition: 100% fibreglass, polyurethane

Conformity evaluated with: basic requirements for building products in accordance with § 5 of Government Order No. 163/2002 Coll. that determines technical requirements for selected building products, specified by the certificate – Building Technical Certificate No. S – 05/018 dated 21 May 2005 issued by AO 219, TZÚ in Brno.

Conclusion of the evaluation: The product is in conformity with requirements of Government Order No. 163/2002 Coll., specified by the certificate – Building Technical Certificate No. S – 05/018. The project engineer should take into consideration real found values of the product properties in relation to the certain construction parameters.

Conditions for use of the report:

The Final Report applies to the above-mentioned product and it may be used only for the product. Without written consent of the authorized body this report may be reproduced only in whole. Its validity is limited by validity of STO No. S – 05/018.

Number of Contract of Check Activities: 219/05/014

Date of the report issue: 20 June 2005

Evaluation carried out by

*Signature*

Ing. Elen Klašková

*Seal:* Authorized Body No. 219, Textile Testing Institute, s.p., ÚNMZ

## **1. General Data**

### **1.1 Customer's Data**

Producer is the customer: PŘÍHODA s.r.o., Za Radnicí 476, 539 01 Hlinsko v Čechách, id. no. 62024205.

### **1.2 Data Concerning the Product**

Textile diffusers and textile air distribution systems are products shaped as a pipe and determined for air transport and distribution. They are made of woven fabrics as polyester, polyethylene or fibreglass.

Diffusers are produced with circular, semicircular and quadrantal cross section, circular segments may be produced as a special variant.

Perforation or microperforation of the woven fabric determines air outlet from the diffuser.

Textile diffusers are made in the following colour variants: white, yellow, grey, blue, red, green, black.

Installation is carried out using installation materials (dowels, hooks, screws) that are fixed to wire strand or into sections. Separate parts of the diffusers and distribution systems are connected with slide fasteners.

#### *Specification of use in construction:*

The diffusers and air distribution systems ensure ventilation, cooling and heating of offices, workshops in food, textile, electrotechnical, chemical and other industries, sports halls, swimming pools, cultural establishments etc.

Maintenance of the textile diffusers and distribution systems is implemented by washing in accordance with symbols given on care label tags.

#### *Product classification in accordance with NV:*

The product is classified in Table 10, Group 9a or 9b in accordance with Appendix No. 2 of Government Order No. 163/2002 Coll. Importer chose the method of conformity evaluation in accordance with § 5, i.e. product certification.

### **1.3 List of Documents Submitted by Customer to Evaluate Product Conformity**

Customer submitted technical documents containing:

- description, construction and technological indices of the product;
- specification and way of use of the product in a building, way of storage and handling;
- check report no. 33/05 dated 10 June 2005, check of production management system;
- technical specification – STO No. 05/018.

### **1.4 Technical Specification Applying to Evaluation of Conformity**

- Certificate – STO No. S – 05/018 dated 21 May 2005 issued by AO 219, TZÚ in Brno with expiration date 31 May 2008 that includes requirements of the appropriate regulations.

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- ČSN EN ISO 14644-1 (12 5301) Clean Area and the Appropriate Controlled Area – Part 1: Classification of Air Cleanliness;
- ČSN EN 13501-1 (73 0860) Fire Classification of Building Products and Construction of Buildings – Part 1: Classification in Accordance with Results of Tests in Fire Resistance;
- Decree No. 132/2004 Coll., On Microbiological Requirements to Food, Way of Their Checks and Evaluation.

## **2. Check of Conformity of Product Properties with Technical Specification**

### **2.1 Technical Requirements**

Technical requirements for the product result from the basic requirements for building products and specification of use of the product in a building. Basic requirements applying to the product and testing methods specifying them are given in Table No. 1.

Table No. 1: Evaluated properties and testing methods

<b>Evaluated property</b>	<b>Testing method</b>
Dimensions, change in dimensions after care	ČSN EN 25 077, ČSN EN ISO 6330
Suitability of use in clean area and the appropriate controlled area	ČSN EN ISO 14644-1
Resistance to fire	ČSN EN 13501-1
Hygienic properties	Decree No. 132/2004 Coll.

### **2.2 Reports on Tests of the Product**

Results of tests given in test reports were used to evaluate conformity:

- no. ZŽP 19-462/04Ex4012519 dated 16 April 2004 issued by SZÚ Praha;
- no. 11923-1/2 dated 17 December 2003; no. 12281-2/2 dated 4 October 2004; no. 12206 dated 16 July 2004 issued by CSI, a.s. Praha;
- no. 36/6/2005 dated 14 June 2005 issued by ÚPL LF MU Brno.

### **2.3 Results of Tests and Their Evaluation**

Results of tests carried out with the reference sample, woven fabric PMI made of 100% modified polyester, in comparison with requirements given in Building Technical Certificate, including evaluation, are stated in Table No. 2.

Table No. 2: Evaluation of product conformity with requirements of Building Technical Certificate No. S – 05/018

Index	Unit of measurement	Required value	Found value	Evaluation
Dimensions, change in dimensions after care	%	--	0 No shrinkage or stretching of the sample	S
Suitability of use for clean area and the appropriate controlled area	Number of particles with dimension 0.5 $\mu\text{m.m}^{-3}$	$\leq 352$	0 No fibre fragments are released from the material as a result of use or care	S
Resistance to fire	Class	Depends on material and location	Sample PMI: B-sI,d0	S
Hygienic properties	Concentration of microorganisms	Suitable / Unsuitable	Suitable not only for food industry	S

Legend for the Table: S – suits

### **3. Check of Prerequisites Necessary for Preservation of Permanent Quality of the Product**

Basic requirements of Government Order No. 163/2002 Coll. specify the above-mentioned STO No. S – 05/018. It determines decisive properties of products, their particular values and testing methods using which the properties are found out and tested by the producer. It determines the requirement for method of evaluation of conformity, including requirement for evaluation of production management system.

Prerequisites for permanent quality assurance of the evaluated products were checked in the conditions of manufacturer's premises based in results of parameter tests required by STO. Producer's technical documents contain complete description of the quality system corresponding to quality management system in accordance with ISO 9001:2000. The check aimed namely at the following documents:

- documents related to quality management system, quality manual, organizational regulations;
- technological instructions, procedures, technical documents related to orders;
- quality records;
- technical documents for the products: product specifications, instructions for application of the products.

Check Report No. 33/05 dated 10 June 2005 issued by COS TZÚ, s.p. Brno informs of results of the check. The Check Report forms an integral part of this Final Report.

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#### **4. Final Evaluation**

**The products – textile diffusers and textile air distribution systems, variants PLS, PMS, NLS, NMS, PLI, PMI, NLI, NMI, NMD, NHI, NHE – showed conformity with the basic requirement of Government Order No. 163/2002 Coll. in the evaluated parameters. The requirements are specified in the certificate – Building Technical Certificate STO No. S – 05/018 issued by TZÚ, s.p. Brno. The system of production management in the producer PŘÍHODA s.r.o., Za Radnicí 476, 539 01 Hlinsko v Čechách ensures meeting the determined parameters in the products.**

Supervision over the product should be implemented through check of the products by the importer once per year, or through random checks of meeting the determined requirements in the products. A check report should be made out concerning the supervision.

Validity of the Certificate issued is subject to positive findings during the supervision.

The customer is obliged to supply an accurate technical specification, including utility parameters, with each type – variant – supplied to the market.

Other conditions of validity of the Certificate are stated in the Contract of Check Activity No. 219/05/014 dated 18 May 2005.

#### **5. List of Documents for Making-out Final Report**

1. Application for evaluation of conformity No. 05/078 dated 11 May 2005.
2. Technical documents consisting of the product description, way of use of the product in a building, documents of way of product quality assurance;
3. Certificate – Building Technical Certificate No. S – 05/018 dated 21 May 2005 issued by AO 219, TZÚ, s.p. in Brno;
4. Check Report No. 33/05 dated 10 June 2005 issued by COS TZÚ, s.p. in Brno;
5. Test reports:
  - no. ZŽP 19-462/04Ex4012519 dated 16 April 2004 issued by SZÚ Praha;
  - no. 11923-1/2 dated 17 December 2003; no. 12281-2/2 dated 4 October 2004; no. 12206 dated 16 July 2004 issued by CSI, a.s. Praha;
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Bílovice nad Svit., 15 August 2005

*Seal:* Authorized Body No. 219, Textile Testing Institute, s.p., ÚNMZ