The National Institute of Public Health



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Centre of Occupational Health

National Reference Laboratory for Dust and Microclimate

In Work Environment

Assessment report No. 1.6/pos/19/19c Hygienic assessment of ventilation components – Smoke extraction dampers

Expertise No.: SZÚ/4892/2019, EX 191755

<u>Customer:</u> Mandík a.s., Dobříšská 550, 267 24 Hostomice Manufacturer: Mandík a.s., Dobříšská 550, 267 24 Hostomice

Assessed products: Type ranges of smoke extraction dampers EKS EKM, SEDS,

SEDS-R, SEDS-L, SEDM, MSD(MSD-W)

Documents used:

- Technical documents and photographic documentation of Mandík a.s., www.mandik.ez
- Certificates and Material sheets PROMAT a GUMEX products
- Declaration of Conformity PM/SEDS/01/16/1, PM/SEDS-R/01/16/1, PM/SEDS-L/01/16/1, PM/SEDM/01/17/1, PM/MSD/01/16/1
- Technical specifications 086/12, 120/16, 121/16, 087/12, 109/15
- Certificate of constancy of performance 1391-CPR-2016/0009, 1391-CPR-2016/0143, 1391-CPR-2018/0106, 1391-CPR-2015/0128, 1391-CPR-2016/0123
- Opinion SZÚ 1.6/13/16/2
- Certificate PAVUS a.s. rubber compound and linear sealing of fire dampers
- Certificate ITC Zlín silicon compound
- VDI 6022-1 Hygiene and Hygiene Inspections of HVAC Systems
- VDI 2167-1 Building services in hospitals Heating, ventilation and air-conditioning
- DIN 1946-4 Ventilation in buildings and rooms of health care.
- ČSN EN 13053+A1 Ventilation for buildings Air handling units Rating and performance for units, components and sections
- VDI 3803 Blatt 1 Air-conditioning Structural and technical principles Central airconditioning systems

Product description:

Type ranges of rectangular and round smoke extraction dampers. The damper body is from galvanized (or black steel or stainless steel) sheet metal; some types include thermoexpandable Promoseal tape in the damper shaft axis plane, fixed around the damper body from the inside. Damper blades are made of sheets of Promatect H or Promatec MS fire protection material. Sealing of the blade (after closing) is made using silicon or rubber sealing together with a ceramic fiber strip. The dampers are controlled by actuators. For the dampers installed in the ducts or fire separation barriers, there are no emissions from the materials used to the air flow that could contaminate the air; no micro-bacterial contamination or spread of such contamination occurs.



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Conclusion:

Based on the mentioned documentation we conclude that smoke extraction dampers EKS, EKM, SEDS, SEDS-R, SEDS-L, SEDM, MSD(MSD-W)

fulfill all hygienic requirements applicable to ventilation components including the requirements of VDI 6022-1, VDI 2167-1, DIN 1946-4, ČSN EN 13053+A1, and VDI 3803 blatt 1.

2. 1. 2019

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