



Opinion No. 1.6/13/16/1

Hygienic assessment of Fire dampers

Expertise No. : EX 131083, SZÚ/03013/2013

Purchaser of Opinion: Mandík a.s., Dobříšská 550, 267 24 Hostomice

Manufacturer: Mandík a.s.

Assessed products: **Dampers type series FDMA, FDMB, FDMC, FDMD**

Used documents:

- 1) Technical base documents and photo documentation owned by company Mandík a.s., www.mandik.cz
- 2) Technical base documents for actuating components used for Damper
- 3) List of material – Nonflammable PROMAT products (fire resistant board Promatect, meshes Promaglaf, seals Promaseal)
- 4) Safety sheet and Declaration of Conformity for product VINYL-FLEX (plastic safety covers)
- 5) List of material for GUMEX s.r.o. (rubber products – sealing systems)
- 6) Protocol PAVUS PK1-01-07-094-C-0 for rubber mixture 51068 and List of material and certificate ITC Zlín No. 10 0481 V/ITC for silicone mixture 51067, manufacturer SicoRubena s.r.o.
- 7) Certification PAVUS, AO 216 No. S-216/C5a/2010/0204 for INTUMES products (Promaseal - fiberglass gasket of fire resistance shutters and dampers)
- 8) ČSN EN 13053+A1 Ventilation of buildings – Air-handling units – Evaluation and realization of units, elements and parts
- 9) EN 13779 Ventilation for non-residential buildings – Performance requirements for ventilation and room-conditioning systems
- 10) VDI 6022-1 Ventilation and indoor air quality – Hygiene requirements for ventilation and air-conditioning systems and units
- 11) VDI 3803 Air-conditioning, System requirements
- 12) VDI 2167-1 Building services in hospitals - Heating, ventilation and air-conditioning
- 13) DIN 1946-4 Air-conditioning systems in Hospital

Product Description:

In meaning of types – Rectangular and Round Fire Dampers, with axially situated Fire Blade with possibility of 90° rotation inside the compact damper casing. Casings of the dampers is made of Galvanized (carbon, or stainless steel). Fire Dampers are equipped by intumescent materials Promaseal in inner space of damper, in contact with seat of Fire Blade in axis of closed blade position. This intumescent material will start to foam and seal the closed blade tightly in case of Fire, or high temperatures. Fire blade is made of non-flammable asbestos free calcium silicate boards with inserted silicone, or rubber sealing tape.



Dampers could be actuated by mechanical mechanism with thermal protective fuse or electrical mechanism with a thermoelectrical starting mechanism.

In case of above mentioned Dampers installed into HVAC systems no dangerous, hazardous or risky substances are released to surrounding environment, microbiological contamination is not possible.

Conclusion:

On the base of materials, documents and samples overhanded by Producer (MANDÍK, a.s., Dobříšská 550, 26724, Hostomice, Czech Republic) related with fullscope of produced dampers type series FDMA, FDMA, FDMA, FDMA we can declare that MANDÍK, a.s.

Fulfills all the hygienic requirements

given by applicable EN laws, regulations and norms. Named Dampers are suitable for use from hygienic and environmental point of view with respect to their material, constructional and operational design. Named Dampers are usable in all environments and don't affect Health by any meaning.

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