PAVUS, a.s.
Authorized body AO 216
Prosecká 412/74, 190 00 Praha 9 - Prosek
Decision on Authorization No. 48/2006 dated 22nd November 2006

PRODUCT CERTIFICATE
No. 216/C5a/2013/0207
Issued for

Manufacturer:
MANDÍK, a.s., Dobříšská 550, 267 24 Hostomice, IČ 26718405
Place of production:
MANDÍK, a.s., Dobříšská 550, 267 24 Hostomice
State of product origin:
Czech Republic

Authorized body AO 216 confirms, pursuant to Article §5 clause 2 of Government Order No. 163/2002 Coll., which lays down technical requirements for selected construction products, as amended by Government Order No. 312/2005 Coll. (hereinafter referred to as Government Order No. 163/2002 Coll.), that in case of the construction product:

Evacuative dampers DM-E

The Authorized body AO 216 has reviewed documents submitted by the Customer, performed the initial type testing of the product specimen, assessed the control method of the products by the Customer and has found out, that this product fulfils the requirements determined by technical regulations that relate to the essential requirements given in the Construction Technical Approval No. S-216/C5a/2013/0207 dated 2nd September 2013 (herein after referred to as the "CTA").

The Authorized body AO 216 has found out, that the control method of the products by the Customer complies with appropriate technical documentation and ensures that the products introduced to the market meet the requirements laid down in the above-mentioned CTA and comply with the appropriate technical documentation according to Section 4 (3) of the above-mentioned Government Order.

An integral part of this Certificate is the Certification Report No. P-216/C5a/2013/0207 dated 5th September 2013 which contains the conclusion of the findings, verifications, test results and general description of the certified product, necessary for its identification.

This certificate remains valid as long as the requirements stated in the Appendix to the CTA referred to hereinafore, or the manufacturing conditions in the factory, or the control method of the products by the Customer, are not significantly modified.

This certificate substitutes and cancels certificate No. 216/C5a/2011/0151 from 21st November 2011 published by AO 216.

The Authorized Body AO 216 performs at least once in 12 months the surveillance of proper function of the control method of the products by the Customer according to §5 clause 5 of the Government Order No. 163/2002 Coll.

If the Authorized Body AO 216 identifies any failures, it is authorized to cancel or change this certificate.

In Prague, 5th September 2013

Ing. Jaroslav Dufek
Managing Director PAVUS, a.s. – AO 216

The assessed characteristics of the certified product are stated on the back page of this certificate.
<table>
<thead>
<tr>
<th>Monitor attribute</th>
<th>Determined (required)/classification standard</th>
<th>Required/declared level</th>
<th>Findings/classification</th>
<th>Conformity assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire resistance</td>
<td>ČSN 73 0810 ČSN EN 1366-2 ČSN EN 13501-3+A1</td>
<td>E 30 (ve ho i→o) S E 90 (ve i→o) S</td>
<td>E 30 (ve ho i→o) S E 90 (ve i→o) S</td>
<td>Confirms *)</td>
</tr>
<tr>
<td>Type of construction</td>
<td>ČSN 73 0810</td>
<td>DP 1</td>
<td>DP 1</td>
<td>Confirms</td>
</tr>
<tr>
<td>Harmlessness to health</td>
<td>Regulation of Ministry of Health of the Czech republic No. 6/2003 Coll.</td>
<td>The product is harmless to health</td>
<td>The product is harmless to health</td>
<td>Confirms</td>
</tr>
</tbody>
</table>

*) this is not fire damper according EN 15650 or smoke control damper according EN 12101-8

**Evacuative dampers DM-E** are
- rectangular dampers with nominal dimension from 100x100 mm to 1200x600 mm, damper axis (longer side) horizontally, or
- circular dampers with nominal diameter 100 mm to 630 mm,
both of them with total length 250 mm.

Actuating device is outside the fire.

Penetration through the supporting structure can be done by:
- seal (mineral wool with a density min. 140 kg/m³ provided outside fire protection squeegee with minimally thickness 1 mm) or
- gypsum (gypsum mortar).

**Evacuative dampers DM-E** are classified for following conditions:

**E 30 (ve ho i→o) S**
- in the wall supporting structure made from gypsum boards, aerated concrete or normal concrete (thickness min. 100 mm),
- before wall supporting structure min. 100 mm thick,
- in the ceiling supporting structure made from aerated or normal concrete min. 150 mm thick,
- before ceiling supporting structure min. 150 mm thick.

Classification **E 90 (ve i→o) S** is valid only for circular dampers and
- in the wall supporting structure made from gypsum boards min. 100 mm thick,
- before wall supporting structure made from gypsum boards min. 100 mm thick.

The validity of CTA No. S-216/C5a/2013/0207 is until 30th September 2016.

Ing. Jaroslav Dufek
Managing Director PAVUS, a.s. – AO 216