# DECLARATION OF PERFORMANCE

No. PM/MSD/01/20/1

1. Unique identification code of the product-type | MSD

2. Products | Smoke control dampers

   Intended use | Smoke control dampers that are to be used in multi compartment smoke control systems, either at 600 °C or under fire conditions

   Technical documentation – product information, instruction for installation and maintenance, safety information | Technical specifications TPM 109/15

3. Manufacturer | MANDÍK, a.s.

   Dobříská 550, 26724 Hostomice, Czech Republic

   ID 26718405, tel. +420 311 706 706

   mandik@mandik.cz, www.mandik.com

5. System of AVCP | System 1

6. Harmonised standard | EN 12101-8:2011

   Notified body | Notified body No. 1391

   PAVUS, a.s., Prosecká 412/74, 190 00 Praha 9 – Prosek

   Output documents of the notified body | Certificate of Constancy of Performance No. 1391-CPR-2016/0123


7a. Declared performances – fire resistance classification

<table>
<thead>
<tr>
<th>Fire separating construction, location of the damper</th>
<th>Installation type, installation system</th>
<th>Performance – class of fire resistance</th>
</tr>
</thead>
</table>
| Horizontal duct | see Technical documentation | Rectangular dampers: E1 120 (v<sub>ed</sub> i<sub>o</sub>) S1500C10000HOT400/30AAmulti

   Round dampers: NPD – no performance determined |

   Vertical duct | see Technical documentation | Rectangular dampers: E1 120 (h<sub>od</sub> i<sub>o</sub>) S1500C10000HOT400/30AAmulti

   Round dampers: NPD – no performance determined |

   Solid wall construction – damper in the wall – 100 mm min. wall thickness | Mortar or gypsum 1) | Rectangular dampers: E1 120 (v<sub>ed</sub> i<sub>o</sub>) S1500C10000HOT400/30AAmulti

   Round dampers: E1 120 (v<sub>ed</sub> i<sub>o</sub>) S1500C10000AAmulti

   Weichschott 1),2) | Rectangular dampers: E1 120 (v<sub>ed</sub> i<sub>o</sub>) S1500C10000HOT400/30AAmulti

   Round dampers: NPD – no performance determined |

1) Refer to Technical documentation for the details of the installation type / installation system.

2) Installation materials may be replaced by a similar approved system of the equivalent performance.
### Fire separating construction, location of the damper

<table>
<thead>
<tr>
<th>Installation type, installation system</th>
<th>Performance – class of fire resistance</th>
</tr>
</thead>
</table>
| **Gypsum plasterboard wall construction**  – damper in the wall  – 125 mm min. wall thickness | **Mortar or gypsum** [1]  
Rectangular dampers:  
EI 120 \((V_{ew} \leq 0.0)\) S1500C\(_{10000}\) HOT400/30AAmulti  
Round dampers:  
EI 120 \((V_{ew} \leq 0.0)\) S1500C\(_{10000}\)AAmulti  
Weichschott [1],[2]  
Rectangular dampers:  
EI 120 \((V_{ew} \leq 0.0)\) S1500C\(_{10000}\) HOT400/30AAmulti  
Round dampers:  
NPD – no performance determined |
| **Solid ceiling construction**  – damper in the ceiling  – ceiling thickness min. 150 mm for aerated concrete | **Mortar or gypsum** [1]  
Rectangular dampers:  
EI 120 \((h_{ow} \leq 0.0)\) S1500C\(_{10000}\) HOT400/30AAmulti  
Round dampers:  
EI 120 \((h_{ow} \leq 0.0)\) S1500C\(_{10000}\)AAmulti  
Weichschott [1],[2]  
Rectangular dampers:  
EI 120 \((h_{ow} \leq 0.0)\) S1500C\(_{10000}\) HOT400/30AAmulti  
Round dampers:  
NPD – no performance determined |

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1) Refer to [Technical documentation](#) for the details of the installation type / installation system.

2) Installation materials may be replaced by a similar approved system of the equivalent performance.

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### Declared performances – other essential characteristics

<table>
<thead>
<tr>
<th>Essential characteristics</th>
<th>Requirements (provisions of harmonised standard EN 12101-8:2011)</th>
<th>Performance (lever or class) / Compliance with the requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal activation conditions/sensitivity</td>
<td>4.2.1.3</td>
<td>Conforms</td>
</tr>
<tr>
<td>Response delay (response time)</td>
<td>4.2.1.4</td>
<td>Conforms</td>
</tr>
<tr>
<td>Operational reliability</td>
<td>4.3.2.2</td>
<td>10 000 cycles – conforms</td>
</tr>
<tr>
<td>Fire resistance – integrity (E)</td>
<td>4.1.1 a), 4.3.1</td>
<td>E – conforms</td>
</tr>
<tr>
<td>Fire resistance – insulation (EI)</td>
<td>4.1.1 b), 4.3.1</td>
<td>EI – conforms</td>
</tr>
<tr>
<td>Fire resistance – smoke leakage (ES)</td>
<td>4.1.1 c), 4.3.1</td>
<td>EIS – conforms</td>
</tr>
<tr>
<td>Fire resistance – mechanical stability (under E)</td>
<td>4.1.1 d)</td>
<td>Conforms</td>
</tr>
<tr>
<td>Fire resistance – maintenance of cross section (under E)</td>
<td>4.1.1 e)</td>
<td>Conforms</td>
</tr>
</tbody>
</table>
| Fire resistance – high operational temperature | 4.1.1 f), 4.3.1 | Rectangular dampers:  
HOT 400/30 – conforms  
Round dampers:  
NPD – no performance determined |
<p>| Durability – of response delay | 4.3.2.1 | Conforms |
| Durability – of operational reliability | 4.3.2.2 | Conforms |</p>
<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Technical standard</th>
<th>Performance (lever or class) / Compliance with the requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Damper blade tightness</td>
<td>EN 1751:2014</td>
<td>For rectangular dampers:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>For 1500x800 mm class 3, otherwise class 2.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>For round dampers:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>For Ø 560 mm and bigger – class 3,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>for smaller diameters class 2.</td>
</tr>
<tr>
<td>Damper casing tightness</td>
<td>EN 1751:2014</td>
<td>Class C</td>
</tr>
</tbody>
</table>

The performance of the product identified above is in conformity with the set of declared performance/s. This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of the manufacturer by:

In Hostomice, 24 February 2020

[Signature]

Marcel Mandík
CEO
MANDÍK, a.s.

Additional provisions for use of the product in Austria

The product-type products meet also all requirements of ÖNORM H 6025 standard.