Datasheet
FFP masks
Protection against Dust, Mist & Fumes

Smart Series – Smart masks

<table>
<thead>
<tr>
<th>FFP1 NR D</th>
<th>FFP2 NR D</th>
<th>FFP3 NR D</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="2380" alt="Image" /> non valved</td>
<td><img src="2480" alt="Image" /> non valved</td>
<td><img src="2505" alt="Image" /> with Ventex®-valve</td>
</tr>
<tr>
<td><img src="2385" alt="Image" /> with Ventex®-valve</td>
<td><img src="2485" alt="Image" /> with Ventex®-valve</td>
<td></td>
</tr>
</tbody>
</table>

**CHARACTERISTICS**

- **ActivForm®**
  Automatically fits to the face. No manual adjustments by the user are necessary.

- **DuraMesh®**
  Masks have a strong and durable structure.

- **Ventex®-valve**
  Starts to open even at low exhalation pressure and significantly reduces moisture and heat inside the mask.

- **Nose seal**
  The flexible nose seal improves fit and provides optimum wearing comfort.

- **Adjustable Strap**
  Makes it easier to take the mask on and off and to adjust to different head/neck dimensions.

- **Clip**
  Easy on & off; mask can be worn around the neck during breaks.

- **Dolomite clogging test**
  Masks have passed the Dolomite clogging test. Better breathing resistance for longer.

- **100% PVC-FREE**
  All Moldex products and packaging are completely free from PVC.

**CERTIFICATION**

The Moldex Smart FFP masks meet the requirements of EN149:2001 + A1:2009 and are CE-marked in accordance with the requirements of European Directive 89/686/EEC. The IFA (0121) Germany is responsible for both type examination (Article 10) and monitoring of production (Article 118). The products are manufactured in an ISO 9001 certified plant.

**MATERIALS**

- **Filter Layer, Inner Shell, DuraMesh®**: Polypropylene, Ethylene-vinyl acetate (EVA)
- **Nose Seal, Clip**: Polyethylene
- **Ventex®-valve**: Natural Rubber
- **Head Strap**: Polyester, Lycra

**WEIGHT**

- **2380**: 16 g
- **2385**: 18 g
- **2480**: 20 g
- **2485**: 22 g
- **2505**: 24 g

**AREAS OF USE**

<table>
<thead>
<tr>
<th>Level</th>
<th>WEL</th>
<th>Hazard type Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>FFP1</td>
<td>4 x</td>
<td>FINE DUSTS, FUMES, WATER AND OIL BASED MISTS/AEROSOLS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non-toxic dusts, cellulose, coal dust, limestone, pollen, sugar</td>
</tr>
<tr>
<td>FFP2</td>
<td>12 x</td>
<td>HAZARDOUS FINE DUSTS, WATER AND OIL BASED MISTS/AEROSOLS, BIOLOGICAL AGENTS OF RISK GROUP 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>As FFP1 but at higher concentrations, plus toxic dusts, aluminium oxide, bauxite, barox, brick dust, cement, gypsum, calcium oxide, concrete dust, granite, lead dust and fume, mould, wood dust (softwood), zinc oxide fume</td>
</tr>
<tr>
<td>FFP3</td>
<td>50 x</td>
<td>HARMFUL AND CARCINOGENIC DUSTS, WATER AND OIL BASED MISTS/AEROSOLS, BIOLOGICAL AGENTS OF RISK GROUP 2 AND 3, CMR-SUBSTANCES</td>
</tr>
<tr>
<td></td>
<td></td>
<td>As FFP2 but at higher concentrations, plus carcinogenic substances, ceramic fibres, brake dust, chromates, chromium, cobalt, nickel, wood dust (hardwood), micro organisms, radioactive and biochemical active aerosols, enzymes, viruses</td>
</tr>
</tbody>
</table>

(WEL = Workplace Exposure Limit)

**Total inward leakage**
Ten test subjects perform a variety of exercises. During the exercises the amount of test aerosol that penetrates the filter, face seal and valve are sampled. The total inward leakage of 8 out of 10 test subjects shall not exceed the following levels:

<table>
<thead>
<tr>
<th>Category</th>
<th>FFP1</th>
<th>FFP2</th>
<th>FFP3</th>
</tr>
</thead>
<tbody>
<tr>
<td>max. total inward leakage</td>
<td>22%</td>
<td>8%</td>
<td>2%</td>
</tr>
</tbody>
</table>

The filter penetration after loading the filter with 120 mg paraffin oil according to DIN EN 149:2001 + A1:2009 shall not exceed the following levels:

<table>
<thead>
<tr>
<th>Category</th>
<th>FFP1</th>
<th>FFP2</th>
<th>FFP3</th>
</tr>
</thead>
<tbody>
<tr>
<td>max. Filter penetration</td>
<td>20%</td>
<td>6%</td>
<td>1%</td>
</tr>
</tbody>
</table>

**Flammability**
4 respirators are passed through a 800°C (+/- 50°C) flame with a speed of 6 cm/s. After passing through the flame the respirator has to self-extinguish.

**Breathing Resistance**
The breathing resistance produced by the filter of the respirator is tested at an airflow of 30 l/min and 95 l/min.

<table>
<thead>
<tr>
<th>Category</th>
<th>max. breathing resistance according to EN 149</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>30 l/min</td>
</tr>
<tr>
<td>FFP1</td>
<td>0,6 mbar</td>
</tr>
<tr>
<td>FFP2</td>
<td>0,7 mbar</td>
</tr>
<tr>
<td>FFP3</td>
<td>1,0 mbar</td>
</tr>
</tbody>
</table>

**Instructions for Use**
- The user has to be trained and instructed in wearing the mask.
- FFP Masks do not protect against gases and vapours.
- The oxygen concentration of the ambient atmosphere should be at 19,5 % Volume.
- These respirators may not be used if the concentration type, and properties of contaminants in the ambient atmosphere are unknown or at dangerous levels.
- Respirators should be disposed if damaged, if the breathing resistance becomes high due to clogging, or at the end of a shift.
- Never tamper with, alter or modify the respirator.

**Instructions for Fitting**
1. Pull strap to form a large loop.
2. Place respirator on chin and pull loop over head tight to the neck.
3. Pull upper strap and place on back of head.
4. Adjust strap by pulling loop on strap.
5. During breaks unclip strap.
6. Let mask hang around your neck.

**Info**
For help on selection and training please contact us. We offer a wide range of training packages and support material.

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