The 3000 Series of FFP's.

**Characteristics**

The "3000 Series of FFP's" from Moldex utilise a unique pleated filter material. This revolutionary approach to the design of filtering facepieces reduces inhalation resistance by up to 50% whilst maintaining filtration performance.

The 3000 Series are both comfortable to wear and economic to use. These substantial benefits are achieved by increasing the surface area of the filter using pleating technology. In addition to lower breathing resistances, these pleated filters have substantially improved clogging characteristics enabling them to pass the dolomite clogging test. This means they can be used longer than other FFP's, even beyond the 8-hour limit after which other FFP's must be disposed of.

Other features include the patented DuraMesh®-Design that provides strength and durability. And the Ventex®-Valve that uses low pressure valve technology to optimise air flow reducing the temperature and moisture vapour in the mask.

Areas of use:

<table>
<thead>
<tr>
<th>LEVEL (MASK)</th>
<th>OEL</th>
<th>HAZARD TYPE (EXAMPLE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FFP2 3305</td>
<td>10 x</td>
<td>FINE TOXIC DUSTS, FUMES, WATER AND OIL BASED MISTS/AEROSOLS (Against non-toxic dusts, e.g. Aluminium Oxide, Bauxite, Borax, Brick Dust, Cellulose, Cement, Coal Dust, Gypsum, Limestone, Paster of Paris, Pollen, Portland Cement, Sucrose, Sugar)</td>
</tr>
<tr>
<td>FFP3 S 3505</td>
<td>20 x</td>
<td>FINE TOXIC DUSTS, FUMES AND WATER BASED MISTS/AEROSOLS (Against toxic dusts, e.g. Brake Dust, Calcium Oxide, China Clay, Concrete Dust, Cotton Dust, Granite, Hay, Lead Dust and Fume, Particulate Welding Fumes, Silica, Sodium Hydroxide, Wood Dust, Zinc Oxide Fume)</td>
</tr>
<tr>
<td>FFP3 3405</td>
<td>20 x</td>
<td>FINE TOXIC DUSTS, FUMES AND WATER BASED MISTS/AEROSOLS (e.g. As for FFP2 but at higher concentrations, plus: Ceramic Fibres, Chromates, Chromium, Cobalt, Nickel, Micro Organisms, Radioactive or Biochemical Active Substances.)</td>
</tr>
</tbody>
</table>

(upply = Occupational exposure limit)  
• EN149: 1991

**Construction / Materials**

The Moldex 3000 Series of FFP's have a common design based on the DuraMesh® technology.

The respirator is made of:

- Filter Layer = Polypropylene
- Inner Shell = Polypropylene
- DuraMesh® Shell = Polypropylene
- Bead Strap = Polyester, Natural Rubber
- Clip = Polyethylene
- Ventex®-Valve = Natural Rubber
- Faceseal = Kraton

Weight: 3305: 42 g, 3505: 42 g, 3405: 42 g

**Testing**

The Moldex 3000 Series of FFP respirators have been tested to • EN149: 1991 and EN149: 2001 and fulfill all requirements of the relevant categories.

• Total inward leakage

Ten test subjects wearing respirators perform a variety of exercises on a running mill. During the exercises the amount of test aerosol that penetrates the filter, face seal and valve (if provided) are sampled. In the different categories the total inward leakage of 8 out of 10 test subjects shall not exceed the following levels:

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>MAX. TOTAL INWARD LEAKAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>FFP2</td>
<td>8 %</td>
</tr>
<tr>
<td>FFP3 / FFP3 S •</td>
<td>2 %</td>
</tr>
</tbody>
</table>

• Filter Penetration

The filter efficiency of 12 respirators is tested. In the • EN149: 1991 category S the test aerosol is Sodium Chloride only. In EN149: 2001 both Sodium Chloride and Paraffin Oil aerosols are tested. The following filter penetration shall not be exceeded.

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>TEST AEROSOL</th>
<th>MAX. FILTER PENETRATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>FFP2</td>
<td>Sodium Chloride / Paraffin Oil</td>
<td>6 %</td>
</tr>
<tr>
<td>FFP3</td>
<td>Sodium Chloride / Paraffin Oil</td>
<td>1 %</td>
</tr>
<tr>
<td>FFP3 S •</td>
<td>Sodium Chloride</td>
<td>3 %</td>
</tr>
</tbody>
</table>

**Certification**

The Moldex 3000 Series of FFP’s meet the requirements of EN149: 2001 and •EN149: 1991 and are CE-Marked in accordance with the requirements of European Directive 89/686/EEC. The Berufsgenossenschaftliche Institut für Arbeitssicherheit (BIA) in St. Augustin in Germany is the body responsible for both type examination (Article 10) and monitoring of production (Article 11).

The products are manufactured in an ISO 9001 certified plant.
The 3000 Series of FFP's.

- **Dolomite Clogging**
  The breathing resistance and filter penetration of 3 respirators is tested after continuous exposure to a known concentration of dolomite dust in air. If the samples pass these tests, the mask is suitable for greater than 8 hours exposure, dependant upon exposure conditions. Masks passing the dolomite clogging test are marked with the letter 'D' after the FFP class designation.

- **Flammability**
  Four 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</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>30 l / min</td>
</tr>
<tr>
<td>FFP2</td>
<td>0,7 mbar</td>
</tr>
<tr>
<td>FFP3 / FFP3 S *</td>
<td>1,0 mbar</td>
</tr>
</tbody>
</table>

* EN149: 1991

**Instructions For Use**

- The user has to be trained and instructed in wearing the respirator.
- The 3505 FFP3 S D does not protect against oil-mists, non water-based aerosols or gases and vapours.
- The 3305 FFP2 D and 3405 FFP3 D do not protect against gases and vapours.
- The oxygen concentration of the ambient atmosphere must be at least 19.5 % Volume.
- These respirators may not be employed if the concentration, type and properties of contaminants in the ambient atmosphere are unknown or at dangerous levels.
- Respirators should be disposed of if damaged, or if the breathing resistance becomes high due to clogging.
- Never tamper with, alter or modify the respirator.

**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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**Enables For Fitting**

1. Fasten the two pieces buckles at the back of the neck.
2. Place respirator on chin and lift upper strap to place on back of neck.
3. Ensure respirator fits secure and comfortable. To fasten respirator pull strap at either side of the buckle.
4. Unbuckle to take off. During work breaks open the buckles and let the mask hang around the neck.

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